

Indirect Exploitation of Intellectual Property Rights By Corporations and Investors

IP Privateering & Modern Letters of Marque & Reprisal



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Abstract

Competitive pressures and rent-seeking behaviors have motivated companies and investors to develop indirect techniques for beneficially exploiting third-party intellectual property rights (IPRs) that qualitatively depart from the direct exploitation tools honed during the past 30 years of the pro-patent era. Among other things, companies have realized that they do not even need to own IPRs in order to consequently benefit from their exploitation. This phenomenon is labeled here “IP privateering” because of its similarities to an historic method of waging war on the high seas. The article classifies IP privateering as a specie of aggressive non-practicing entities (NPEs). The parameters of this newly identified strategy are probed using a variety of methods. The apparent evolution of this indirect IPR exploitation strategy is also traced among companies. A typology for IP privateering is provided that identifies the key variables associated with this strategy. Examples of privateering, both actual and hypothetical are discussed. The identified privateering scenarios, while small in number, have amounted to well over \$3 billion USD in rent collections and have possibly saved sponsoring companies an order of magnitude more in avoided revenue losses. The infrastructure that supports privateering is discussed as well as how a possible patent oversupply may facilitate this strategy. The social utility of privateering is examined from various points of view including corporate, SME, investor, and inventor. Further questions are posed regarding IP privateering and aggressive NPEs (observing that both actors are likely supported financially by participants operating in the investment capital market), the need for ownership transparency in the innovation system, and whether the legislator should more explicitly design an innovation system that includes boundaries for various IPR strategies.

Keywords: Intellectual property (IP), intellectual property right (IPR), competition, indirect exploitation, non-practicing entity (NPE), innovation system, antitrust, corporate formalism, equity, investor, operating company, patent, patent misuse, patent troll, privateer, tortious interference, unclean hands.

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Chapter 1

Introduction

Modern capitalist economies have been built on competition among market actors.¹ Absent adverse legal or business consequences, companies are incentivized to compete using every tool and technique reasonably at their disposal. Companies have increasingly employed intellectual property rights (IPRs) as competitive tools during the past 30 years of the pro-patent era, frequently with the goal of extracting value directly from their IPRs whether from licensing revenue or litigation rewards. As IPR competition has accelerated,² companies and investors have sought to grow ever greater returns from IP assets which has incentivized the exploration of new applications of IPRs to fulfill competitive aspirations. Innovations in IPR exploitation have led companies and investors to develop a class of strategic techniques that facilitates the indirect application of IPRs for beneficial effects. One technique among these indirect strategies, labeled here as “IP privateering,” concerns the exploitation of third-party IPRs as tools for achieving larger competitive goals.

1.1 An Overview of IP Privateering in the Pro-Patent Era

The dramatic changes in the significance of the IPR system over the past 30 years should be recalled. In the early 1980s, important changes, particularly in the US, stimulated an era in which firms and other institutions became significantly more interested in IPRs, particularly patents, than they had in the past. Prior to this period, patents had often been viewed as minor competitive tools. Over the intervening 30-year period, IPRs have become much more important, and the resulting IP regime is often referred to as the “pro-patent era.” In the US, this new era was initially driven by a variety of factors, including but not limited to the creation of the Court of Appeals for the Federal Circuit and the passage of the Bayh-Dole Act.³ The effects of this era have been pervasive on diverse levels, including international consequences. The pro-patent era rapidly involved Japan and many other countries as well.⁴ Over these subsequent years, countries and companies have increasingly armed themselves with IPRs as competitive tools, with the USA and Japan in the lead, at least terms of active patents and new patent application filings. IPR issues, once unimportant questions for specialists, have become strategic and risen to high levels of political and industrial management.

¹ See, e.g., Joseph Schumpeter, *Capitalism, Socialism and Democracy*. (Harper, 1976) (1942).

² Adam Jaffe, *The U.S. Patent System in Transition: Policy Innovation and the Innovation Process*, Research Policy 29: 531-557 (2000).

³ See, e.g., Martin J. Adelman, *The New World of Patents Created by the Court of Appeals for the Federal Circuit*, Journal of Law Reform 20 (4): 979-1007 (1987) and Robert Merges and Richard Nelson, *On the Complex Economics of Patent Scope*, Columbia Law Review 90(4): 839-916 (1990), compare with Samuel Kortum and Josh Lerner, *Stronger Protection or Technological Revolution: What is Behind the Recent Surge in Patenting?*, Carnegie-Rochester Conference Series on Public Policy 48: 247-304 (1998).

⁴ Ove Granstrand, *Corporate Innovation Systems. A Comparative Study of Multi-Technology Corporations in Japan, Sweden and the USA*, Report submitted to the EU Dynacom project, CIM Report 2000.

During this pro-patent era, competitive pressures stimulated increasing interest in IPRs and strategies related to their deployment. The majority of these strategies could be classified as “direct uses” in which a company focuses exclusively on maximizing the effectiveness of IPRs developed from the company’s own R&D activities. Over time, increasing interest in IPRs, as discussed below, stimulated the development of robust IPR markets. The competitive pressures and the rich varieties of IPRs available in these markets have led to the development of various indirect IPR strategies. Companies no longer need to rely exclusively on IPRs developed from their own R&D. Companies may purchase external, third-party IPRs to fulfill a variety of needs. If a competitor has a product that threatens a company’s own products, but the company owns no pertinent IPRs of its own, the company may purchase relevant IPRs in the market and sue the competitor for infringement. Similarly, if a company is sued for infringement but holds no pertinent IPRs to use in a countersuit, the company may purchase an appropriate IPR in the market. A still further indirect use of IPRs, which is the subject of this article and labeled here as “IP privateering,” concerns the beneficial application of third-party IPRs for a sponsoring entity against a competitor to achieve a corporate goal of the sponsor.

A corporation or investor serving as the sponsor for an IP privateering engagement employs third-party IPRs as competitive tools. The privateer, a specialized form of non-practicing entity (NPE)⁵, asserts the IPRs against target companies selected by the sponsor. The sponsor’s benefits do not typically arise *directly* from the third party’s case against a target but arise *consequentially* from the changed competitive environment brought about by the third party’s IPR assertion. As discussed below, the sponsor’s benefits may include nudging the target into a less competitive position, facilitating the licensing of a larger collection of the sponsor’s own IPRs, and causing a beneficial change to the target’s share price and/or corporate valuation. The third-party privateer’s motivation comprises collecting a litigation settlement or damages award.

IP privateering, as used herein, can be defined as: the assertion of IPRs by an entity (the privateer), typically in the form of an NPE, against a target company for the direct benefit of the privateer and the consequential benefit of a sponsor, where the consequential benefits are significantly greater than the direct benefits. The strategy, in part, relies upon the intransparencies of ownership and motivation permitted in the IP system. The strategy relates to indirect strategies in that the IPRs asserted are not owned by the sponsor, although they may have originated from the sponsor’s R&D.

Indirect exploitation of IPRs via intermediaries⁶ does not *per se* give rise to a specific legal cause of action against the sponsor in most scenarios. In fact, the sponsor’s potential legal

⁵ This article uses the conventional NPE acronym rather than the patent assertion entity (PAE) acronym recently advanced by the Federal Trade Commission. See, *The Evolving IP Marketplace: Aligning Patent Notice and Remedies with Competition* (2011) at 8. <http://www.ftc.gov/os/2011/03/110307patentreport.pdf>.

⁶ As discussed below, these intermediaries can perform more than a mere “outsourced” litigation function. The intermediary’s bringing of a litigation against a target changes the relative competitive landscape between the target

liability rarely exceeds that of the third-party privateer who carries out the sponsor's assertion plan. If the privateer avoids liability, so does the sponsor in most instances. Potential sponsor legal liability may give rise to causes of action ranging from tortious interference in business relations to patent misuse, as well as possible market manipulation charges and antitrust problems. A sponsor's greatest potential liability however rests on adverse business consequences, particularly from public exposure of the sponsor's involvement. Indeed, a sponsor's goals for a privateering operation are often defeated by public exposure. For example, IP privateering only thwarts the "mutually assured destruction" paradigm of defensive patenting so long as the operating company sponsor can plausibly deny control over the privateer. Consequently, the sponsor typically makes every effort to hide its involvement in a privateering operation. Privateering can often achieve the sponsor's aims well before a decision on the merits of the case brought by the privateer.

Privateering scenarios can be shaped to fit many competitive scenarios. Privateering may be used by operating companies to change the technology adoption rate between an upstart technology and an incumbent technology, to outsource the licensing of a larger collection of IPRs, and to change some aspect of the legal infrastructure. Privateering may be used by investors to grow existing investments by privateering against competitors in a given technology area, to change the value of the stock price of a public company to temporarily discount its shares and/or to facilitate short selling, to change a company's value during investment, and to recoup investment research and analysis costs. Outsourcing patent litigation, one branch of privateering, allows companies to shape their competitive environments and in some instances monetize their IP rights at extremely low cost. While industry experts and IP managers concede that privateering exists, the extent to which various privateering scenarios have occurred, are occurring, or will occur in the future, and which privateering scenarios are possible but presently only hypothetical remains somewhat unknown and unknowable because the sponsor's goal in almost every privateering engagement is stealth and because there are few existing reasons under US law why the complete ownership structure behind a given patent-holding entity must be publicly exposed⁷ of why the motivations of a plaintiff in a patent infringement case must be explained. The privateering examples discussed below appear to have resulted in the collection of more than \$3 billion thus far by the known sponsors, and still more in terms of revenues retained and costs avoided, although the total amount received by sponsors remains unclear and possibly incalculable.

IP privateering is not limited to just operating companies; investor groups also likely privateer as well. In some instances, as discussed below, the potential returns and liabilities for these investors compares even more favorably than for the operating companies. Hybrid

and the sponsor to the sponsor's advantage such that the sponsor often benefits whether or not the litigation succeeds.

⁷ See, "Article 2"; secrecy in privateering has no relationship with the social compromise relating to the technical disclosure required to obtain a patent under 35 USC Sec. 112.

privateering efforts by operating companies and investors also seem to have occurred, especially in instances where the investors are also major stockholders of the operating company that will indirectly benefit from the privateering litigation.

Although privateering *per se* gives rise to no legal or equitable cause of action,⁸ whether the practice should be discouraged is another matter. Since privateering is generally lawful, one cannot easily argue that the practice encourages disrespect for the law. Nevertheless, privateering raises questions about the social utility of IPRs, particularly patents. Among other things, is “intransparency” in the IPR system harmful or are society’s objectives in maintaining an IPR system met simply through the enforcement of government-granted rights by any actor, even a hidden one? Privateering also raises questions about the impact of venture capital investments in NPEs on the overall economy and the innovation system as a whole. In the absence of information to the contrary, it seems possible that much of the profit from privateering, as well as NPEs, returns to investment rather than being removed from investment.⁹ Privateering also raises questions about the quantity of active and available patents in the pro-patent era and the ease with which they can be acquired and asserted. The impact of privateering on the innovation system and the apparent presence of key innovation system actors in privateering suggests the possible consideration of a more overtly constructed innovation system explicitly designed by all of its major stakeholders, including independent inventors. However, conclusions are difficult to draw with the information presently available and additional investigation seems warranted.

1.2 Historical Privateering

IP privateering resembles an historic method of waging war so effective that it had to be abolished by treaty, the Paris Declaration Respecting Maritime Law (1856).¹⁰ “Privateering,” as it was called, was effective and cheap – the privateer’s actions cost the sponsoring government nothing. Privateering, like the creation of corporations, allowed governments to pursue policy objectives without any impact on the treasury. In short, classical privateering removed most obstacles to waging war, save for the opponent’s ability to retaliate. IP privateering similarly has the opponent’s ability to retaliate as its greatest obstacle, hence the importance of stealth to the sponsor.

Classical privateering was state-sponsored piracy. The government gave the privateer a “letter of marque and reprisal” that allowed him to seize the property of the state’s enemies.¹¹

⁸ See, “**Article 2**”.

⁹ As discussed below, the typical minimum capital outlay for a privateering operation suggests that it is available to a class of market participants whose living needs are already well met, *e.g.*, the sponsors’ profiles likely resemble those of venture capitalists.

¹⁰ *Declaration Respecting Maritime Law*. Paris, April 16, 1856; text of the treaty available from the International Red Cross at <http://www.icrc.org/ihl.nsf/INTRO/105?OpenDocument>.

¹¹ Article I, Section 8, paragraph 11 of the U.S. Constitution authorizes Congress to “grant Letters of Marque and Reprisal;” see, <http://www.archives.gov/exhibits/charters/constitution.html>.

The privateer could capture ships flying under the enemy's flag, sell the ships and their cargoes at auction and keep the proceeds. During the first Anglo-Dutch War of 1652, English privateers seized more than 1,000 Dutch ships over a two-year period.¹² In the subsequent Anglo-Spanish war of 1654, Spanish and Flemish privateers in return seized more than 1,500 English merchant vessels.¹³ Many of the famous English "Sea Dogs," such as Sir Francis Drake, were privateers. To further curtail the use of privateering in warfare, the Hague Convention (1907) clarified the Paris Declaration, by requiring, among other things, that non-military vessels converted into military vessels be under the immediate command of a sovereign government in order for the crew not to be considered pirates.¹⁴

1.3 Brief Review of Related Work

Many studies have been investigated the growth of IPRs in the pro-patent era of the past 30 years.¹⁵ Studies have also focused on examination of the innovation system.¹⁶ In general, these studies indicate that IPRs, particularly patents, play a role in the furtherance of technology markets. However, the degree to which IPRs further the technology markets and/or are vital to technology transfer differs somewhat among these studies. Many more recent studies have focused on the aggressive NPEs and the impact of patent litigation on the innovation system.¹⁷ The role of NPEs in the innovation system, especially the aggressive NPEs, has been highly controversial in recent years with many authors asserting that the patent portion of the innovation system has been severely impaired with other articles arguing that the arguments have been

¹² Gary Anderson and Adam Gifford, *Privateering and the Private Production of Naval Power*, Cato Journal, Vol. 11, No. 1, Spring/Summer 1991, 106.

¹³ *Id.*

¹⁴ *Convention (XIII) Concerning the Rights and Duties of Neutral Powers in Naval War*. The Hague, Oct. 18, 1907; text of the treaty available from the International Red Cross at: <http://www.icrc.org/ihl.nsf/INTRO/240?OpenDocument>.

¹⁵ See, e.g., Ralph Landau and Nathan Rosenberg (eds.), *The Positive Sum Strategy: Harnessing Technology for Economic Growth*, (National Academy Press, 1986); Dietmar Harhoff, F.M. Scherer, and Katrin Vopel, *Exploring The Tail Of Patented Invention Value Distributions*," Chapter 12, pp. 279–309, in Ove Granstrand (ed.), *Economics, Law and Intellectual Property* (Kluwer Academic Publishers, 2003); Edwin Mansfield, *Patents And Innovation: An Empirical Study*, *Management Science*, 32 (2), pp. 173–81(1986); F. M. Scherer, *New Perspectives on Economic Growth and Technological Innovation* (Brookings Institution Press, 1999); F. M. Scherer, *The Propensity To Patent*, *International Journal of Industrial Organization*, 1 (1), 107–28(1983); F. M. Scherer, *Innovation and Growth. Schumpeterian Perspectives* (The MIT Press, 1984).

¹⁶ See, e.g., Richard Nelson (ed.), *National Innovation Systems: A Comparative Analysis* (Oxford, 1993), Bengt-Åke Lundvall (ed.), *National Systems of Innovation. Towards a Theory of Innovation and Interactive Learning* (Pinter Publishers, 1992), Charles Edquist, *Systems of Innovation, Technologies, Institutions and Organizations* (Pinter Publishers, 1997), Ove Granstrand, *Corporate Innovation Systems. A Comparative Study of Multi-Technology Corporations in Japan, Sweden and the USA*, EU Dynacom project, CIM Report 2000:01, Dept. of Industrial Management and Economics, Chalmers University of Technology, 2000 and Franco Malerba (ed.), *Sectoral Systems Of Innovation – Concepts, Issues And Analyses Of Six Major Sectors In Europe* (Cambridge, 2004).

¹⁷ See, e.g., Economic Report of the President, *The Role of Intellectual Property in the Economy*, Council of Economic Advisers, CEA, (2006), The Fed. Trade Comm'n, *To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy* (2003), The Federal Trade Commission, *Evolving IP Marketplace. The Operation of IP Markets: The IP Marketplace in the IT Industry* (2008), The Federal Trade Commission, *The Evolving IP Marketplace: Aligning Patent Notice and Remedies with Competition* (2011).

exaggerated. The indirect uses of IPRs have been touched upon briefly in other studies,¹⁸ although I am not aware of a study focused on indirect IPR uses *per se*. These previous studies have examined indirect uses of IPRs where a commercial actor either acquired a patent(s) and asserted it against a competitor or where a commercial actor responded to an infringement litigation by buying a patent(s) and using it to bring counterclaims against the plaintiff. I am also not aware of a previous study that has examined the indirect use of IPRs by a party that has not even purchased or licensed the IPRs that a third party is beneficially exploits on its behalf, which is the subject of this article.

1.4 Purpose and Research Questions

Aggressive NPEs have emerged in recent years from beyond their pioneering practitioners. Billions of new capital has flowed into NPEs such as Intellectual Ventures, Acacia, RPX, Round Rock Research, and many others.¹⁹ Concurrently with this development, and somewhat related to it, operating companies have increasingly explored indirect uses of IPRs from buying patents and then asserting them against competitors to buying patents solely for the purpose of filing a countersuit in an infringement litigation initiated by a competitor. This article explores a further development in the indirect application of IPRs, one in which companies do not even need to own IPRs in order to consequentially benefit from their exploitation, which has been labeled here as IP privateering.

Based on the methodological and theoretical frameworks, this article attempts to answer the following research questions:

RQ1. How extensive is the use of IP privateering and can a typology be developed around the core parameters of the strategy?

RQ2. Is the infrastructure of the existing innovation system sufficiently robust to accommodate the indirect uses of IPRs, including curtailing such strategies when they act to the net detriment to the overall innovation system?

The first research question above concerns the identification of IP privateering cases and with developing a framework description of this strategy. This question is investigated by reviewing commonalities among known litigations where a third party has likely beneficially motivated the bringing of the infringement litigation. These commonalities are then organized to form a typology comprising what appears to be the extent of the strategy.

The second research question originates from the apparent growth of various indirect IP strategies, of which privateering is but one. This question also arises as a result of the increasing

¹⁸ See, e.g., Colleen Chien, *From Arms Race to Marketplace: The Complex Patent Ecosystem and Its Implications for the Patent System*, *Hastings Law Journal* (2010).

¹⁹ A list of the investors in four of Intellectual Venture's investment funds is provided in Appendix 1.

amounts of capital that have recently become available to aggressive NPEs, including but not limited to the IP privateers, and this question also considers asymmetries such as the differing levels of transparency possible between the plaintiff and the defendant in an IP litigation, as well as issues such as the consequences of developing markets for IPRs.

Two related research questions are pursued in a companion article.²⁰ These two related questions are: (1) What are the limits on deployment of this strategy by commercial actors? (2) To what extent can targets of privateering attacks retaliate against the sponsors simply for privateering alone, as opposed to other causes of action?

1.5 Scope and Limitations

The investigation of the impact of IP privateering can be interpreted in many ways depending on the purposes and scope of the study. This report has the following scope of analysis and limitations of the results:

1. This study primarily focuses on the identification of an IP strategy that has not previously been identified. The study focuses on exploring the potential range of this strategy and further studies the potential limitations on its usage. The practitioners' needs for secrecy make collecting actual cases difficult, although many have been collected, and they amount to several billion dollars in economic activity. Nevertheless, the number of cases presently known is limited, rendering it difficult to undertake the types of statistical analyses that one would prefer to utilize.

2. The study is implemented primarily in the USA using US patents and considering the US legal system. Therefore it does not address detailed investigation in other countries, apart from one possible instance of IP privateering in Germany. Thus, the boundaries and limitations on the strategy discussed in Chapters 3 and 4 may be substantially different in other legal systems. As a result, the strategy may possibly be differently deployable in other legal settings, and possibly not available at all.

1.6 Outline of the Article

This report comprises a descriptive portion followed by a discussion portion. The descriptive portion (Chapter 2) begins with an overview of the competitive background into which IP privateering evolved and classifies IP privateering as a specie of aggressive NPEs. This section also describes various methodologies that have been used to probe the extent to which corporate actors have employed this strategy. The descriptive section (Chapter 3) then explains how IP privateering works in its various embodiments and provides a topology of privateering along with examples of privateering among both operating companies and investors. The descriptive section also discusses the infrastructure that supports privateering and concludes with a

²⁰ See, **Article 2**.

discussion of how a present patent oversupply seems to facilitate privateering. The discussion portion (Chapter 4) observes that present law may be used to curtail anticompetitive and market manipulative privateering but further observes that effective curtailment may require the intervention of the Securities and Exchange Commission and/or the Antitrust Division of the Department of Justice. The discussion section next looks at those forms of privateering that are not clearly anticompetitive or market manipulative and concludes that these forms of privateering will likely continue in the short-to-medium term and may require the intervention of the legislator if their curtailment is desired. The discussion section examines the social utility of privateering from various points of view including corporate, SME, investor, and inventor, and poses some questions about privateering and aggressive NPEs, observing that both activities are likely supported by players also operating in the investment capital market and considering whether the legislator should explicitly design an innovation system that includes boundaries for activities like privateering and aggressive NPE activity.

Chapter 2

IP Privateering Background and Analytical Framework

2.1 The Competitive Background of Contemporary IPR Employment

The rise of new IPR strategies as a result of increasing IPR competition over the past 30 years has been noted. The development of various indirect IPR strategies has also been noted as will be discussed further. Because patent litigation in particular typically involves stakes of several million dollars,²¹ a common assumption is that the primary motivation behind every infringement lawsuit is making money directly from the litigation.²² But what if the ultimate reward arises as a *consequence* to the litigation as opposed to the litigation's settlement or damage award itself? IP privateering recognizes that third-party IP rights can serve as useful tools in shaping a firm's competitive landscape and can be used to generate consequential returns that sometimes exceed the direct returns possible from a patent license or litigation settlement.

Some IP strategies, such as privateering, can escape notice for years. First, companies do not typically reveal their core IP strategies.²³ There are issues and practices related to overall

²¹ PricewaterhouseCoopers, *A Closer Look—Patent Litigation Trends and the Increasing Impact of Nonpracticing Entities* 6 (2009) (The PWC Study determined that the median patent infringement damage award for NPE patent holders from 2002 to 2009 was \$12 million and that the median patent infringement damage award for operating companies was \$3.4 million. PWC only reviewed published court awards as settlements are typically confidential.)

²² See, Julianne Pepitone, *Patent Troll Sues Apple, Google, And Most Of The Tech Universe* (CNN Money, July 9, 2010) (http://money.cnn.com/2010/07/09/technology/ntp_sues_apple/index.htm?source=cnn_bin&hpt=Sbin) and see generally, Daniel P. McCurdy, *Patent Trolls Erode the Foundation of the U.S. Patent System*, *Sci. Progress*, Fall & Winter 2008/2009, at 78–79.

²³ Sven-Christer Nilsson, a former CEO of Ericsson, once remarked that IP strategy is not the sort of thing that a company should outsource or share with outsiders. “You keep all that to yourself,” he said. Noted by Nilsson during Innovation & Intellectual Property Day (“IIP Day”) at Chalmers University, Oct. 10, 2008.

corporate strategy that rarely, if ever, come to the attention of even a firm's closest advisers let alone the public. Second, successful privateering typically demands stealth, so only a select group understands the overall plan. Third, few venues exist for public discussion of confidential corporate strategies, and corporations have no incentive for sharing their secrets with the rest of the world.²⁴ The legal system as a whole does not typically reflect on the motive behind any given patent lawsuit.²⁵ The Federal Circuit has not adjudicated a privateering case, *per se*, and probably never will, as a hearing at an appeals court would not typically be in a sponsor's best interests. Finally, digging out the specific motives and motivations from powerful circumspect parties can be a Herculean effort.

Privateering exists in two main varieties – corporate and investor. Corporate privateering, although possibly not investor privateering, jibes with classical management theory. Traditional models hold that firms outsource tasks that do not represent increasing returns or diminishing costs and retain tasks such as governance.²⁶ Investor privateering also follows a similar pattern, although outsourcing may likely be done less for stealth reasons than for expertise reasons. Sponsoring corporations tend to set the objectives for a privateering operation, assist in assembling the necessary resources for carrying out the plan, and then step aside from further hands-on management. For some corporate privateers, the privateering effort can be likened more to outfitting an autonomous probe for a deep space mission. Once the probe has been launched, its creator loses a measure of control over it.²⁷ Playing a more active role could show the corporate sponsor's hand, the very hand that needs to be obscured in order for the privateering effort to work properly.

2.1.1 The Growth of IPR Competition During the Pro-Patent Era

Competition among companies has been described as a cumulative, dynamic process in which firms develop multi-faceted plans that comprise assembling various complementary assets to achieve business goals.²⁸ Among other things, firms have been forced to continuously innovate, pressed by shortened technology, development, and product life cycles, which has effectively increased competitive pressures.^{29,30,31} Competitive pressures across a whole

²⁴ Corporate IP strategies play no part of the public disclosure required to obtain patent protection under 35 U.S.C. Sec. 112, the US Patent Act.

²⁵ If anything, the motive is simply assumed to be obtaining money via a damages award or settlement.

²⁶ See, George J. Stigler, *The Division Of Labor Is Limited By The Extent Of The Market*, Journal of Political Economy (1951), 59(3): 185-193.

²⁷ See, e.g., Gina Keating, *Mars Probe Lost In Space*, Cosmos, Nov. 22, 2006 (<http://www.cosmosmagazine.com/news/866/mars-probe-lost-space>).

²⁸ See, Ashish Arora and Robert Merges, *Specialized Supply Firms, Property Rights and Firm Boundaries*, Industrial and Corporate Change (2004), 13(3): 451-475; see also, David Teece, *Managing Intellectual Capital: Organizational, Strategic, and Policy Dimensions*. Oxford: Oxford University Press, 2000.

²⁹ See, Ove Granstrand, *The Economics and Management of Technology Trade: Towards A Pro-Licensing Era*, International Journal of Technology Management (2004), 27(2, 3): 209 - 240. (Granstrand particularly notes the assembly of multiple technologies in products.); see also, Ove Granstrand, *The Economics and Management of Intellectual Property: Towards Intellectual Capitalism* 176 (Edward Elgar, 1999).

spectrum of issues have already motivated firms to look broadly and outside their own organizations for technologies and IPRs. This section summarizes the development of IP strategies as a result of competitive pressures during the pro-patent era of the past 30 years.

IPRs, as key complementary assets, have been increasingly employed as competitive tools³² and business assets.³³ Among other things, US patent licensing revenues have grown from below \$15 billion annually at the beginning of the 1990s to around \$100 billion annually by 2002 and are likely to be even higher now.³⁴ Corporate focus on IPRs has been encouraged by companies who have reportedly saved themselves from bankruptcy by virtue of their patent licensing programs.³⁵ As more and more firms reported increases in their licensing transactions,³⁶ competitive pressures understandably forced some firms to innovate in the direction of developing markets for the transaction of IP assets.³⁷

Competitive pressures motivated a surge in corporate patenting rates over this interval.³⁸ Companies expended substantial funds to acquire patents, typically from their own R&D,³⁹ and in the process sometimes arguably acted against their own self interests.⁴⁰ Once companies obtained large portfolios, they had good reasons to begin the strategic management of these expensive corporate assets. Many companies initially practiced, or proclaimed to practice, a

³⁰ See, Henry Chesbrough, *Open Innovation. The New Imperative for Creating and Profiting from Technology*, Boston, Harvard Business School Press.

³¹ See, Fabrizio Cesaroni, Alfonso Gambardella, and Walter Garcia-Fontes, *R&D, Innovation and Competitiveness in the European Chemical Industry*. Boston, Mass., Kluwer Academic (2004).

³² Markus Reitzig, et al. *Collateral Damage For R&D Manufacturers: How Patent Sharks Operate In Markets For Technology, Industrial and Corporate Change* (2010), 1–21 at 2.

³³ Granstrand, *supra* note 28; Chesbrough, *supra* note 29.

³⁴ David Kline, *Sharing The Corporate Crown Jewels*, MIT Sloan Management Review (2003), 44(3): 89-93.

³⁵ See, Granstrand, *supra* note 4 and see, Gregory Dess, G.T. Lumpkin and Marilyn L. Taylor, *Strategic Management, Creating Competitive Advantages. 2 ed.* (McGraw-Hill, 2005.) (Texas Instruments was reportedly saved from bankruptcy in the mid-1980s by a patent licensing and litigation effort that hit certain Japanese operating companies particularly hard.)

³⁶ John Sheehan, Catalina Martinez and Dominique Guellec, *Understanding Business Patenting and Licensing: Results of a Survey. Patents, Innovation and Economic Performance*, (2004), OECD Conference Proceedings, 89-11.

³⁷ See, Henry Chesbrough, *Emerging Secondary Markets For Intellectual Property*, Research Report to National Center for Industrial Property Information and Training (NCIPI) (2006), and Ulrich Lichtenthaler, *Leveraging Knowledge Assets: Success Factors of External Technology Commercialization*, (Deutscher Universitätsverlag, 2006).

³⁸ See, *WIPO Patent Report: Statistics on Worldwide Patent Activities* 11 (World Intellectual Property Organization, 2007) (“Since 1980, the patent offices of the United States of America followed by the European Patent Office, the Republic of Korea and China have all experienced significant growth rates in filings. At the nine [largest patent offices], the average annual growth rate from 1960 to 2005 was 3.35%.”) (http://www.wipo.int/freepublications/en/patents/931/wipo_pub_931.pdf).

³⁹ *The Evolving IP Marketplace., Id.* at 677–78 (statement of Robert Barr, Vice President for IP and Worldwide Patent Counsel, Cisco Systems, Inc.).

⁴⁰ *Id.* at 713 (statement of Robert Barr, (“[W]e’ve entered this game five, six years ago in full force for the wrong reason and we’re contributing to the proliferation to mutually assured destruction.”). See, also, R. Polk Wagner, *Understanding Patent Quality Mechanisms*, 157 U. Pa. L. Rev. 2135, 2155 (2009) (Adopting a strategy of quality over quantity is difficult to successfully implement because the IP system itself encourages the opposite behavior.)

defensive patenting strategy in which their patents protected product revenues and were not otherwise asserted.⁴¹ By contrast, in an offensive patent strategy, companies assert their patents to obtain revenues directly from third parties. The defensive accumulation of patents has been known to set in motion a progression that ultimately results in the offensive licensing and enforcement of those same defensively acquired patents.⁴² For example, prior to its acquisition by Alcatel, Lucent Technologies had slowly evolved from being a defensive patentee into having an IP business group with 266 employees including licensing executives.⁴³ A company may, when exiting a technology area, seek to license the technology in order to recoup past R&D expenses.⁴⁴ Similarly, a company might have patented a technology at an early stage and never developed it.⁴⁵ Companies asserting such IPRs have sometimes been called “corporate trolls.”⁴⁶

Lawsuits between large companies⁴⁷ represent 28% of all advanced technology patent litigations.⁴⁸ In a study of high-tech patent suits, Chien found that such suits were not only more common than other types of suits, but that they also lasted longer.⁴⁹ Litigation patterns also suggest that even large companies in their IPR assertions exploit asymmetries with their peers. Among 575 hardware and software “large company” lawsuits between 2000 and 2008, less than a third of the suits involved direct competitors. Some 40% of the cases involved a degree of competitive overlap, but more than 30% of the litigations involved companies having no overlapping business lines. Chien’s findings are consistent with other empirical findings.⁵⁰ Exploiting an asymmetric exposure to a target company may tend to render the asserting company less exposed to countersuit⁵¹ although still susceptible to reputational damage where the infringement depends upon legal subtlety or questionably valid IPRs.

Patent proliferation somewhat counter-intuitively makes it easier for manufacturers to overlook IPRs in technically complex industries. An unbounded number of IPRs may potentially

⁴¹ See, e.g., Josh Lerner, Jean Tirole, and Marcin Strojwas, *Cooperative Marketing Agreements Between Competitors: Evidence from Patent Pools* 31, NBER Working Paper No. 9680 (2003).

⁴² Colleen V. Chien, *From Arms Race to Marketplace: The Complex Patent Ecosystem and Its Implications for the Patent System*, *Hastings Law Journal* (2010), 297-356 at 323.

⁴³ David Rubenstein, *Patent Profits: How Lawyers And Engineers Milk The Intellectual-Property Cash Cow*, *Industry Wk.* (Nov. 2, 1998) (http://www.industryweek.com/articles/patent_profits_102.aspx).

⁴⁴ See e.g., Bernice Lee et al., *Who Owns Our Low Carbon Future? Intellectual Property and Energy Technologies* 6 (Chatham House, 2009), (describing such a practice as “divestiture licensing”).

⁴⁵ See Colleen Chien, *Of Trolls, Davids, Goliaths, and Kings: Narratives and Evidence in the Litigation of High-Tech Patents*, 87 *N.C. L. Rev.* 1577–78 (2009) (As to such patents, the patent owner is “non-practicing.”).

⁴⁶ See e.g., Joseph N. Hosteny, *Litigators Corner: Is IBM a Patent Troll?*, *Intell. Prop. Today*, May 2006, at 26, 26–27.

⁴⁷ Chien, *supra* note 45, at 1612–14. (Chien defines a “large company” as a public company or private company with annual revenue of over \$100 million.)

⁴⁸ *Id.* at 1603 (NPE lawsuits comprised 19% of the total.)

⁴⁹ *Id.* at 1605.

⁵⁰ See James Bessen & Michael J. Meurer, *The Patent Litigation Explosion* 18 (Bos. Univ. School of Law Working Paper Series, Paper No. 05-18, 2005), available at <http://ssrn.com/abstract=831685> (reporting that, among the 680 suits between public companies the authors studied, 29% involved competitors, 43% had overlapping product lines, and 28% had no industry overlap, based on comparison of the litigants’ SIC codes).

⁵¹ Chien, *supra* note 41 at 318.

read on a single product feature,⁵² and may be widely dispersed across different technology classes, resulting in a potential IP study whose costs would likely far outweigh its benefits, especially given that many of the owners of the discovered IP rights might never assert their rights for a variety of reasons.⁵³ This information complexity creates friction in technology markets.⁵⁴ Because costly complementary assets create bargaining power in technology interactions,⁵⁵ large R&D-intensive manufacturers can build up competitive strongholds in technology markets over time. Under these conditions, an IPR system contributes more to the functioning of the technology market than away from it.⁵⁶

Patent pools comprise another tool developed by corporate managers in response to competitive IPR pressures. Among other things, patent pools may curtail infighting among competitors and allow a new technology to enter the market.⁵⁷ Patent pools may be constructed along a variety of variables and for a variety of considerations. Pools may offer certain efficiencies for vertically integrated firms by enabling an industry cross-licensing mechanism.⁵⁸ Contributors to pools may both own patents and manufacture technology and thus both pay and receive pool-related royalties. Of course, patent pools can fail when parties cannot agree on licensing fees and allocations.⁵⁹ Rather than joining a patent pool, a party may choose license or litigate separately from any mechanisms provided by the pool.⁶⁰

The tone and tenor of corporate patent and technology licensing transactions has similarly gone through various stages of development over the past few decades. In the early years, many large company cross licenses often focused on quantity over quality, with metrics ranging from measuring patent stacks⁶¹ to essentially random patent sampling.⁶² The sheer volume of patents

⁵² See, Bronwyn Hall and Rosemarie Ziedonis, “*The Patent Paradox Revisited: An Empirical Study of Patenting in The U.S. Semiconductor Industry, 1979–1995*,” RAND Journal of Economics, (2001), 32(1), 101–128.

⁵³ Rosemarie Ziedonis, *Don’t Fence Me In: Fragmented Markets for Technology and the Patent Acquisition Strategy of Firms*, Management Science (2004), 50(6), 804–820.

⁵⁴ Reitzig, *supra* note 31 at 4.

⁵⁵ See, David Teece, *Profiting From Technological Innovation: Implications For Integrating, Collaboration, Licensing and Public Policy*, Research Policy (1986), 15, 285–305.

⁵⁶ Ashish Arora and Alfonso Gambardella, *The Changing Technology of Technological Change: General and Abstract Knowledge and the Division of Innovative Labor*, Research Policy (1994), 30(9), 1479–1500.

⁵⁷ Maisie Ramsay, *Diving into the LTE Patent Pool*, Wireless Week (May 20, 2009), <http://www.wirelessweek.com/Articles/2009/05/Diving-Into-the-LTE-Patent-Pool/>

⁵⁸ Anne Layne-Farrar and Josh Lerner, *To Join or Not To Join: Examining Patent Pool Participation and Rent Sharing Rules*, Int’l J. Indus. Org. 296 (2011), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=945189.

⁵⁹ Ramsay, *supra* note 59 (quoting Derek Aberle, President of Technology Licenses, Qualcomm, as stating that large companies rarely join patent pools and consequently pool members tend to be small companies).

⁶⁰ Layne-Farrar and Lerner, *supra* note 60 at 301.

⁶¹ See e.g., *The Evolving IP Marketplace: The Operation of IP Markets: The IP Marketplace in the IT Industry*: Hearing Before the Fed. Trade Comm’n 132 (May 4, 2009) (statement of Ron Epstein, Chief Executive Officer, Ipotential, LLC), available at <http://www.ftc.gov/bc/workshops/ipmarketplace/may4/090504transcript.pdf>. (In the infamous “ruler” methodology, “you would bring your stack and you’d bring a ruler, and you’d put each stack next to each other and you’d take a ruler and you measure the relative heights of the stack and some algorithm would tell you the number.”).

involved in some major cross licenses and the high cost for determining which patents in a giant portfolio applied to a given competitor, coupled with factors ranging from determining appropriate royalty rates to considerations of invalidity for some patents in a given portfolio, further underlined the logic behind patent licensing among large companies.⁶³ Large patent-owning companies came to understand that this was the most efficient licensing procedure when it came to transactions among themselves. But this approach was not downward scalable when a large portfolio interacted with a small one. Among other things, issues such as invalidity and infringement can be reasonably well studied for a small portfolio.⁶⁴

2.1.2 Intermediaries and the Growth of Patent Markets

The increasing commercial application of IP assets has led to the growth of markets for patents and other IPRs⁶⁵ and an increasing presence of intermediaries entering the market.⁶⁶ Over time, these intermediaries have become more and more specialized.⁶⁷ While some intermediaries work towards the further development of a robust market for the efficient exchange of IP assets,⁶⁸ these same intermediaries can obviously serve indirect exploitation uses extremely well. Patent brokers can conduct negotiations for the privateering sponsor; patent valuation firms can assist in estimating settlement amounts, and patent acquisition firms, such as auction houses, can assist in transitioning patents from one owner to a new, privateering owner. Patent law firms, which sometimes support all of these functions, have been around for more

⁶² *Id.* at 743 (statement of Fred Telecky, Senior Vice President and General Patent Counsel, Texas Instruments Corp.) (“for [TI] to know what’s in [its patent] portfolio, we think, is just a mind-boggling, budget-busting exercise.”)

⁶³ *See e.g., Tex. Instruments v. Hyundai Elecs. Indus.*, 49 F. Supp. 2d 893, 901 (E.D. Tex. 1999) (“[I]t is almost impossible on a patent-by-patent, country-by-country, product-by-product basis to determine whether someone is using a company’s patents.”)

⁶⁴ *See, e.g., Suneel Arora, Preparing or Evaluating Non-Infringement and Other Patent Opinions*, Schwegman, Lundberg, 2006. (<http://www.slwip.com/services/documents/PreparingorEvaluatingNon-InfringementandOtherPatentOpinions.PDF>)

⁶⁵ *See, Chesbrough, supra* note 36; I. Troy and R. Werle, *Uncertainty and the Market for Patents*, (Max Planck Institute for the Study of Societies, 2008), <http://www.mplfg.de/pu/workpap/wp08-2.pdf>, and Alfonso Gambardella, P. Giuri, and M. Mariani, *Study on evaluating the knowledge economy: what are patents actually worth? The value of patents for today's economy and society*, Brussels, European Commission, Directorate-General for Internal Market, 2006).

⁶⁶ OECD, BMWI, EPO, *Intellectual Property as an Economic Asset: Key Issues In Valuation And Exploitation*, (2005), Berlin at 8. (<http://www.oecd.org/dataoecd/18/2/35519266.pdf>) (“Many large firms have developed internal capabilities for patent management and licensing, but as in other markets a diverse set of intermediaries has also emerged to foster technology markets, more so in the United States than in Europe. Intermediaries include technology licensing offices at public research organisations, Internet-based portals and private firms that offer advice and actively link buyers and sellers of technology. Each type of intermediary has a different customer focus and different level of involvement in transactions, but all play important roles in facilitating partnerships, ensuring confidentiality of partners in a transaction (*e.g.* protecting privacy in negotiations to avoid competitors knowing about the parties’ interests), offering expertise (need to ensure that the deal corresponds to the parties’ needs) and providing an external perspective on the negotiation.”)

⁶⁷ Irene Troy and Raymund Werle, *Uncertainty and the Market for Patents*, Max Planck Institute for the Study of Societies (2008). Cologne, <http://www.mplfg.de/pu/workpap/wp08-2.pdf>.

⁶⁸ Chesbrough, *supra* note 29.

than one hundred years, although their primary mission is to assist clients in obtaining patents from national patent offices.⁶⁹

Specialized intermediaries have developed to facilitate IPR transactions between buyers and sellers.⁷⁰ Changes in corporate policies coupled with a slew of new patent buyers have recently grown the market for patents.⁷¹ While public auctions comprise the most visible trading platform, the vast majority of transactions occur in private – either by direct sale, brokered private sale, or private auction.^{72,73} Patent auctions facilitate transaction efficiency through changes in conventional governance structures.⁷⁴ Among other things, buyers and sellers are no longer directly connected. Thus, the transaction becomes “indirect,” which further facilitates the parties’ needs for discretion, especially in privateering scenarios. Auctions also implement standardized transaction structures through the use of templated legal frameworks (*e.g.*, standardized due diligence procedures, templated contracts, and lump sum payments). Simple governance structures should be used with simple contractual relations with complex governance structures reserved for complex relations.⁷⁵ Thus, auctions employ at least semi-specific governance structures while trading highly specific assets as “spot market transactions.”⁷⁶

Public auction results, which provide the most visible IPR market transactions, show that operating companies have slowly overcome their traditional not-invented-here reluctance and purchased patents in the marketplace, although operating companies generally appear more interested in selling patents than buying them.⁷⁷ Many firms still remain hesitant to trade IP

⁶⁹ For example, Bristows, a UK patent law firm, was founded in 1837; *see*: http://www.bristows.com/about_us/key_facts

⁷⁰ *See*, Peter Detkin, Founder & Vice Chairman, Intellectual Ventures, Presentation at the Federal Trade Commission’s Hearings: *The Evolving IP Marketplace: The Operation of IP Markets* 11 (Dec. 5, 2008), presentation available at <http://www.ftc.gov/bc/workshops/ipmarketplace/dec5/docs/pdetkin.pdf> and Raymond Millien & Ron Laurie, *Meet the Middlemen*, Intell. Asset Mgmt., Feb./Mar. 2008, at 53, 55.

⁷¹ Lew Zaretzki, *Rising Prices and Changing Strategies*, Intell. Asset Mgmt., Feb./Mar. 2008, at 61, 61.

⁷² Tom Ewing, *Inside the World of Public Auctions*, Intell. Asset Mgmt., July/Aug. 2010, 63, 67 (approximating IV’s acquisition expenditures through public auction to be 5% of its total acquisition expenditures) (<http://www.iam-magazine.com/issues/article.ashx?g=994839d2-f84f-446a-b100-ee58e92aa55e>).

⁷³ *Id.*

⁷⁴ Frank Tietze, *Managing Technology Market Transactions - Can Auctions Facilitate Innovation?* Institute for Technology and Innovation Management. (Hamburg University of Technology, PhD thesis (Edward Elgar, 2011, forthcoming)).

⁷⁵ Oliver Williamson, *Transaction-Cost Economics: The Governance of Contractual Relations*, *Journal of Law and Economics* (1979), 22(2), 239. (Williamson argues that governance costs are a function of asset specificity, and to a large extent, the choice of any governance structure depends on the asset specificity, *i.e.* whether an asset is a commodity or highly specific. For example, complex structures used to govern a simple relation are likely to incur unneeded costs and a simple structure employed for a complex transaction invites strain.)

⁷⁶ *Id.* at 233-261.

⁷⁷ Ewing, *supra* note 71 at 64 (While operating companies have supplied half of the lots available in public auction, they have purchased only about 11% of the lots sold. This number likely underrepresents the share of total patents sold to practicing companies on the public and private market, as practicing companies may prefer to buy in the private market, where they have better control over the amount of information available to competitors and to the public.)

assets.⁷⁸ Among other things, selling IPRs in patent markets has often been considered an “unforgivable sin”⁷⁹ because the seller is “arm[ing] terrorists.”⁸⁰

Competitive pressures have somewhat thawed these historical attitudes. Many corporations have essentially unused IPR assets that are nevertheless expensive to maintain.⁸¹ The IPR marketplace assists such companies in disposing of their surplus IP assets.⁸² Of the patent lots offered for sale during Ocean Tomo’s auctions from Fall 2006 to Spring 2009, nearly half originated from operating companies,⁸³ and almost a quarter of them (125 out of 511) were offered by public companies.⁸⁴ Among the well-known operating companies, Sun listed the most lots, at 13, followed by IBM at 10 and AT&T at eight.⁸⁵ Other companies such as 3Com, Dow Chemical, Ford Motors, Kimberly-Clark, Motorola, Philips Electronics, and Siemens AG have also offered patents for sale.⁸⁶

The patent marketplace has also developed a buyer-side association with NPEs, or “patent trolls.”⁸⁷ At least six patent lots purchased at Ocean Tomo auctions have already been asserted in patent litigation.⁸⁸ Patents by their nature are unique assets, and in many instances the odds that a patent satisfying some very specific characteristics will be waiting for a given corporate

⁷⁸ See, Eckhard Lichtenthaler, *Organising The External Technology Exploitation Process: Current Practices And Future Challenges*, International Journal of Technology Management (2004) 27(2-3): 255 - 271 and Chesbrough, *supra* note 29.

⁷⁹ *Evolving Marketplace*, *supra* note 60, at 95.

⁸⁰ Matthew Fawcett & Jeremiah Chan, *March of the Trolls: Footsteps Getting Louder*, 13 Intell. Prop. L. Bull. 1, 10, 19 (2008).

⁸¹ Chien, *supra* note 41 at 333.

⁸² *The Evolving IP Marketplace: The Operation of IP Markets: Hearing Before the Fed. Trade Comm’n* 42–43 (statement of Steven J. Hoffman, Chief Executive Officer of ThinkFire) (“[T]he number of large corporations that have started to consider selling their [patents] has dramatically increased over the last couple of years.”).

⁸³ Ewing, *supra* note 71 at 63.

⁸⁴ See, Tom Ewing, *Publicly Auctioned Patent Buyers*, (Avancept: 2010), (based on analysis of Ocean Tomo patent auctions from Spring 2006 to Spring 2009.); see, also Ocean Tomo auction catalogs from the Fall 2006 through Spring 2009.

⁸⁵ *Id.* at Appendix 1.

⁸⁶ *Id.*

⁸⁷ Ewing, *supra* note 71 at 68. (Note: “patent trolls” are sometimes termed “patent extortionists,” “patent sharks,” “patent terrorists,” “patent pirates,” or basically, the word “patent” combined with any pejorative noun).

⁸⁸ Vtran Media Technologies, LLC spent \$990,000 on Lot 21 of the Fall 2006 auction and has subsequently sued nearly a dozen companies for infringement of the video on demand patents. Eleven Engineering Game Control LLC bought Lot 72A at the Spring 2009 patent auction and has filed infringement lawsuits against Nintendo, Sony, and Microsoft. Corveq LLC Imaging bought Lot 26 at the Fall 2008 auction for \$27,500 and has subsequently sued Adobe and Kodak for patent infringement. Quito Enterprises, LLC paid more than \$1 million for Lot 6 at the Spring 2008 auction and subsequently filed suit against some 13 companies for patent infringement. On Jan. 20, 2011, Pragmatus VOD LLC filed patent infringement lawsuits against the major US cable companies (*e.g.*, Time Warner Cable, Cox Cable, Charter Communications, and Comcast) and their subsidiaries for infringement of US Patent 5,581,479 and US Patent 5,636,139. These patents were acquired from Intellectual Ventures (IV) sometime prior to the lawsuit. IV acquired these patents as part of a larger patent lot purchased at the Spring 2007 Ocean Tomo patent auction for \$3.025 million by IV’s Lot 20 Acquisition Foundation shell company. IV itself recently filed three large patent infringement litigations involving several patents. IV acquired one of the patents in the litigations, US Patent 5,987,610, as part of Lot 28B at the Fall 2006 Ocean Tomo auction for \$770,000. See, *supra* note 83.

purchaser are slim.⁸⁹ On the other hand, aggressive NPEs who buy patents to make money from licensing and litigation can be less picky – they just need a patent that is arguably infringed by some corporate actor and can involve any set of technical features. Similarly, for many privateering sponsors, “close” is probably good enough for their privateering operations. Although the IPRs will be targeted for use against a particular company, there is no requirement that the privateer employ an IPR that is any closer to infringement than those found and asserted by aggressive NPEs, with Rule 11 being the limiting factor.⁹⁰

The prices for patents sold at Ocean Tomo auctions offer a reasonable proxy for the cost of a typical NPE patent, and by extension, the price of a typical privateering patent. Of the available public sales data, the average patent sold to Intellectual Ventures, the largest single open market IP purchaser by far, was \$148,966.⁹¹ The average patent price to non-IV buyers was \$197,693.⁹²

2.1.3 The Rise of Aggressive Non-Practicing Entities (NPEs)

The rise over the past decade of aggressive NPEs has likely prompted further refinements to the IPR exploitation techniques pioneered by the early adopters of the aggressive NPE business model.⁹³ The original NPE business model was pioneered by certain iconic figures⁹⁴ and modes of operation⁹⁵ but has likely over time shifted to more sophisticated drivers and motivations. As discussed below, the NPEs, especially the so-called patent trolls, have possibly come to represent another face of the same actors who already control large portions of the economy.⁹⁶ The privateers, a subset of the NPEs, essentially function as agents for operating companies attempting to achieve corporate goals and maximize shareholder value. Of course, the early adopters pioneered procedures and practices that may be less likely to change over time, *e.g.*, the preference for contingency fee arrangements.⁹⁷

⁸⁹ Ewing, *supra* note 71 at 66.

⁹⁰ This topic will be covered extensively in “**Article 2**”.

⁹¹ Ewing, *supra* note 83 at 5.

⁹² *Id.*

⁹³ Most likely in the form of efficiency improvements coupled with greater investment capital.

⁹⁴ Jerome Lemelson, pioneered the licensing of NPE patents and subsequently licensed his 600 patents for more than \$1.5 billion to nearly a thousand companies. Lemelson also perfected the so-called “submarine” patent. *See e.g., A Special Tribute to: Jerome Lemelson, Am.’s Inventor Online*, <http://www.inventionconvention.com/americasinventor/dec97issue/section16.html#Friday>.) and *Jerome Lemelson’s Patents*, Smithsonian Lemelson Ctr., http://invention.smithsonian.org/about/about_patents.aspx.) .

⁹⁵ Mary Waldron, *The Patent Prosecution Pioneer: Intellectual Property Attorney Gerald Hosier*, LawCrossing, <http://www.lawcrossing.com/article/pdf/3445.pdf> (Lemelson’s attorney, Gerald Hosier, pioneered the commonly used IP contingent-fee arrangement); *See also*, Wegner & Maebius, *supra* note 52 at 13 (describing Lemelson as an inventor from outside of industry.).

⁹⁶ In terms of access to capital if nothing else.

⁹⁷ *See, e.g.*, Robert Garf, *Best Practices Emerge From Early Adopters of Web-Based Workforce Management* (AMR Research, 2005)(Pioneers often develop practices that are copied and improved upon by their successors.).

NPEs have bought portfolios in public auctions and then used them to sue others.⁹⁸ Similarly, some independent inventors have moved towards patent enforcement. Individual inventors, often having extremely low levels of funding, are more likely to partner with contingency-fee lawyers in their patent-assertion campaigns.⁹⁹ Independent inventors, acting as NPEs, are among the most litigious actors in the patent system. According to one study, a single individual, Ron Katz, is an inventor on twenty of the top hundred most litigated patents.¹⁰⁰ Other famous independent inventor-litigants include Jerome Lemelson¹⁰¹ and Robert Kearns.¹⁰²

Modern NPEs operate across a wide spectrum of business models. Some NPEs sue established companies for infringement of patents they have acquired, and others develop their own technology and seek to commercialize it. Mark Lemley and Nathan Myhrvold have attempted to develop a taxonomy of twelve types of patent holders, eleven of which are non-practicing.¹⁰³ The entities in this taxonomy are identified as: (1) Acquired patents, (2) University heritage, (3) Failed startup, (4) Corporate heritage, (5) Individual-inventor-started company, (6) University/Government/NGO, (7) Startup, pre-product, (8) Product company, (9) Individual, (10) Undetermined, (11) Industry consortium, and (12) IP subsidiary of product company.¹⁰⁴ Some NPEs are considered “trolls,” while others arguably should not be.¹⁰⁵ The differing profiles complicate characterizations about companies based on whether they do or do not practice their patents.¹⁰⁶ Unlike public companies, many NPEs are not burdened by the need to manage investor expectations or minimize disruption to a core business.¹⁰⁷

Reitzig found indications that the NPEs’ domain has become “more professional” over time, as one would expect for businesses that increasingly interact both adversely and cooperatively with large operating companies. NPEs have begun employing sustainable strategies that will likely survive currently debated or recently implemented policy changes,¹⁰⁸ which hints at an increased level of professionalism for NPEs firms.¹⁰⁹ Firms that obtain patents for which changing to a non-infringing substitute technology would cause their infringing targets long-term switching costs are able to run a profitable licensing/litigation business even if short-term legal

⁹⁸ Ewing, *supra* note 71 at 68.

⁹⁹ Brenda Sandburg, *You May Not Have a Choice. Trolling for Dollars*, Recorder (July 30, 2001), <http://www.phonetel.com/pdfs/LWTrolls.pdf> at 2 (Niro, Scavone often has clients who cannot afford to bring lawsuits against well-financed corporations.)

¹⁰⁰ See e.g., John R. Allison et al., *Extreme Value or Trolls on Top? The Characteristics of the Most Litigated Patents*, 158 U. Pa. L. Rev. 35-37 (2009).

¹⁰¹ See *supra* note 100.

¹⁰² See *Kearns v. Chrysler Corp.*, 32 F.3d 1541, 1543 (Fed. Cir. 1994) and John Seabrook, *The Flash of Genius*, New Yorker, Jan. 11, 1993, at 39.

¹⁰³ Allison, *supra* note 106 at 10 tbl.1 & n.20.

¹⁰⁴ *Id.* at 110.

¹⁰⁵ Mark A. Lemley, *Are Universities Trolls?* 18 Fordham Intell. Prop. Media & Ent. L.J. 611, 612 (2008).

¹⁰⁶ *Id.*

¹⁰⁷ Acacia, for example, is a rare public company among NPEs; IV by contrast is a private company.

¹⁰⁸ See, Joachim Henkel and Markus Reitzig, *Patent Trolls, the Sustainability of “Locking-in-to-Extort” Strategies, and Implications for Innovating Firms*, (2007) http://papers.ssrn.com/sol3/papers.cfm?abstract_id=985602.

¹⁰⁹ Reitzig, *supra* note 31 at 3.

measures are no longer as easily available, and even if damage awards are reduced in the future.¹¹⁰

2.1.4 The Innovation System and the Emerging IPR Ecosystem

The innovation system comprises the institutions and actors who influence and/or are involved in innovation processes and how these parties join and interact over time to impact the flow of technology and information as key components in the innovative process within the overall economy.¹¹¹ In the US, the innovation system is not described or defined through the operation of a single policy or even necessarily a cohesive set of policies but rather through the operation of a number of policies, agencies, and private actors. The private actors include not only large companies but individuals, small firms, research labs, and universities. Synergistic effects among the innovation system's participants results in turning ideas into processes, products, and services available in the market. IPRs related to innovation/invention, such as patents comprise, one critical component of the innovation system.

Competitive pressures have encouraged managers to explore innovations in the use of IP assets as competitive tools in their own right. Over time, what might have once been a fairly simple arrangement within the innovation system has evolved into a complex IPR ecosystem.¹¹² These innovations produced the direct IP asset exploitation tools discussed above, including but not limited to patent licensing and assertion programs. The evolving IPR ecosystem features many kinds of entities, distinct business models, patent profiles, and patent strategies.¹¹³ The most noticeable contemporary players in this ecosystem are the large companies holding enormous portfolios and the aggressive NPEs. Both actors play significant roles in shaping the innovation system and interact continuously with other participants such as individual inventors, small companies, research labs and universities.

A single IPR strategy no longer directs the IPR ecosystem. Product companies that acquire patents only to protect their product/service sales revenue against competitors have generally diminished in most industrial sectors. A company may employ certain patents defensively to gain freedom to operate, but the same company may also sell other patents and employ still other

¹¹⁰ *Id.*

¹¹¹ The innovation system concept was widely elaborated upon and accepted during the 1990s. *See, e.g.*, Richard Nelson (ed.), *National Innovation Systems: A Comparative Analysis* (Oxford, 1993), Bengt-Åke Lundvall (ed.), *National Systems of Innovation. Towards a Theory of Innovation and Interactive Learning* (Pinter Publishers, 1992), Charles Edquist, *Systems of Innovation, Technologies, Institutions and Organizations* (Pinter Publishers, 1997), Ove Granstrand, *Corporate Innovation Systems. A Comparative Study of Multi-Technology Corporations in Japan, Sweden and the USA*, EU Dynacom project, CIM Report 2000:01, Dept. of Industrial Management and Economics, Chalmers University of Technology, 2000 and Franco Malerba (ed.), *Sectoral Systems Of Innovation – Concepts, Issues And Analyses Of Six Major Sectors In Europe* (Cambridge, 2004).

¹¹² *See e.g.*, Brian Kahin, *The Patent Ecosystem in IT: Business Practice and Arbitrage* (Dec. 5, 2008) (submission based on remarks before the Federal Trade Commission), available at <http://www.ftc.gov/bc/workshops/ipmarketplace/dec5/docs/bkahin2.pdf>.

¹¹³ *Id.* at 4-5.

patents in licensing efforts or infringement suits. Such companies cannot be described as exclusively practicing a defensive strategy. A company may enjoy IPR peace with certain of its competitors while also using IPRs to exploit the asymmetric advantages it enjoys over other companies. As will be shown later, IP privateering enables companies to exploit their IPRs against competitors with whom they are otherwise at peace while being able to plausibly deny that they have any control over the exploitation of those IPRs.

In the evolving patent ecosystem, a company's own patents are less helpful in preventing patent litigation, especially when a plaintiff exploits an asymmetry not covered by defendant's own portfolio, leaving the defendant unable to file a countersuit against the plaintiff. The greatest asymmetry possible is the plaintiff's lack of producing any sort of product whatsoever (*i.e.*, an NPE), leaving the defendant with few options for disincentivizing the plaintiff's litigation. As a result, defensive strategies have been re-conceptualized to include new tactics, including sharing information, prevention, disruption, and coordination, for securing freedom to operate.¹¹⁴

The history of pro-patent era shows that corporate IPR behaviors are influenced by those of their peers.¹¹⁵ As Chien notes, industry leadership, demonstration effects, and licensing practices have led firms to file for thousands of patents during the pro-patent era.¹¹⁶ Similarly, the business of patent assertion has been catalyzed, not by any single legal development, but by the development and popularization of creative business models based on patent exploitation. The development of intellectual property management (IPM) has enabled patentees to learn from their peers skills related to how to patent, how much to patent, and how to use patents. These actors have observed and learned from each other's application filing, patent litigation, and licensing practices – and this provides yet another reason for companies to keep privateering under wraps – they don't want their competitors to learn about privateering and use it against them.

Of course, it makes sense for corporations to use IP assets to achieve competitive goals, but this does not mean that employment of these IPRs directly will always provide the company with the greatest value, and it does not mean that the assets employed need to be the corporation's own IP assets.¹¹⁷ Companies may not always be in a position to openly exploit their IPRs directly against competitors. One characteristic of most forms of IP privateering is the inability of the sponsor to attain its corporate goals by employing IPRs openly.

The evolution of IP privateering among corporate IP managers conforms to North's observation that “institutions, organizations, the mental models of the actors interact to produce

¹¹⁴ Chien, *supra* note 41 at 351.

¹¹⁵ *Id.* at 347-348.

¹¹⁶ *Id.* at 303.

¹¹⁷ IBM, for example, values its IPR portfolio at three times that of its licensing revenue because of the company's ability to leverage the portfolio.

institutional change.”¹¹⁸ North, like Chandler, argues that “as organizations evolved to take advantage of opportunities they became more productive ... and gradually they also altered the institutional framework.”¹¹⁹ IP privateering similarly evolves corporate responses to IP strategy issues and provokes still further changes in the IP ecosystem. Among other things, the traditional notion that one must own an IPR in order to beneficially exploit it goes away. Privateering enables a company or an investor to benefit from an IP asset simply by motivating its owner to take actions in the marketplace whose results will provide benefits to the firm in the form of a changed competitive landscape. In accordance with North, organizational innovations enable the capture of more gains from trade (including portions of competitor revenue streams), which subsequently enable expansion of markets.¹²⁰

2.2 IP Privateering Identified as a Specie of Aggressive NPEs

In IP privateering, a sponsor incentivizes a privateer to make an IPR assertion against a target company. The privateer’s rewards come directly from the IPR assertion while the sponsor’s rewards are indirect and consequential to the IPR assertion. The typology section below further explores the ways in which sponsors can consequentially benefit from the privateer’s actions. The sponsor may develop the privateer’s exploitation plan and outfit the privateer for carrying out that plan, but secrecy allows the privateer’s sponsor to achieve objectives that would be difficult, if not impossible, to secure if the sponsor conducted the mission openly and under its own colors. Camouflaging the sponsor’s existence is usually critical for operational success IP privateering.

Despite efforts to make hide the existence of privateering, industry managers concede that it exists.¹²¹ Ruud Peters, CEO of Philips Intellectual Property & Standards, among others, confirms that it does.¹²² “Privateering has probably been around for decades,” said Peters.¹²³ “It lets the other guy do the work with no direct exposure to the company. Privateering takes place under a whole shade of arrangements.”¹²⁴ The sponsor’s needs to be insulated from liability arising from the privateering effort, as well as general discretion, correspond with the theorems for firm specialization and forward disintegration, or “outsourcing.”¹²⁵

¹¹⁸ Douglass C. North, *Institutional Change: A Framework Of Analysis. Institutional Change: Theory And Empirical Findings*. S.-E. Sjöstrand. Armonk, NY, Conference on Socio-Economics; 3 (Stockholm): 1996: 35-47 at 36 (“The continuous interaction between institutions and organizations in the economic setting of scarcity and hence competition is the key to institutional change.”).

¹¹⁹ Alfred Chandler, *The Visible Hand: The Managerial Revolution In American Business*, (Belknap Press, 1977).

¹²⁰ North, *supra* note 125 at 36.

¹²¹ Several insiders, however, have spoken about privateering “off the record” only.

¹²² Author telephone interview with Ruud Peters in Oct. 28, 2010.

¹²³ *Id.*

¹²⁴ *Id.*

¹²⁵ See e.g., Gary Akehurst, *What Do We Really Know About Services?* Service Business (2008) 2(1): 1-15.; Tim Holcomb and Michael Hitt, *Toward A Model Of Strategic Outsourcing*, Journal of Operations Management (2007)

Investor privateering likely occurs over a slightly wider range than corporate privateering, which tends to be focused on a specific competitive threat. But all forms of privateering are probably more prevalent in technology industries where products and technologies are reasonably interchangeable. Among other things, interchangeability also suggests that a greater amount of IPRs are likely to overlap, which simplifies finding a suitable IPR for the privateer. Privateering is probably least likely to occur in the pharmaceutical industry because of the lower level of interchangeability although one could expect to find it in the medical device industry. Privateering occurs most commonly in the consumer electronics and software industries. Privateering is a species of aggressive NPE litigation, and the vast majority of NPE litigation has arisen in the consumer electronics, software, and medical devices industries with very low levels of NPE litigation in the pharmaceutical industry. These industries are already rife with IP competition, so apart from the other qualities that make them suitable for NPE litigations, the managers in these industries have long since added IP competition to their cache of competitive tools.

IP privateering *per se* does not run afoul of any US laws – statutory, common, or equitable. Certain specific IP privateering scenarios, as discussed in a related article, may give rise to particular kinds of liability.¹²⁶ Whether the practice should give rise to some sort of cause of action or be declared against public policy is another question whose answer somewhat depends on how one views IPRs and competition. Some may view IP privateering as just another competitive tool while still others may find that the practice provides a further example of an IP system gone astray. As noted, this thesis focuses primarily on US law. The extent to which various privateering scenarios may be facilitated and/or circumscribed by non-US law has not been investigated. However, a working hypothesis would be that certain privateering scenarios could likely be made to work in most jurisdictions.

2.2.1 NPEs, Privateers, and Markets

IP privateering aligns with theories suggesting that IPRs generally provide greater benefits to large firms.¹²⁷ For the most part, only large firms and certain investors appear to participate in IP privateering. By contrast, NPEs, especially the aggressive firms that exploit information asymmetries in technology markets to gain IPR-based competitive advantages, could be viewed as somewhat challenging established theory by which technology markets benefit large firms and that IPRs exist primarily to support markets for technology.¹²⁸ Privateering provides a means for companies that make products to target the revenues of other product-manufacturing companies while avoiding reputational damage, *i.e.*, to enjoy the benefits of being an aggressive NPE.

25(2): 464-481, and Volker Mahnke, *The Process Of Vertical Disintegration: An Evolutionary Perspective On Outsourcing*, *Journal of Management and Governance* (2001). 5(3): 353-379.

¹²⁶ See, “**Article 2**”.

¹²⁷ Reitzig, *supra* note 31 at 1.

¹²⁸ *Id.*

Technology markets have been viewed as increasing the strategic space for firms, emphasizing a firm's abilities for monitoring and seizing external technologies¹²⁹ to gain competitive advantage.¹³⁰ Large firms should be particularly able to capitalize on their own capabilities and assets to seize such opportunities where the innovations are other than radical.¹³¹ Privateering, which comprises a new application of existing NPE techniques, accords with this analysis. The marketplace has allowed companies that do not develop technology or products to exploit their freedom to litigate. NPEs that do not have competing demands for management attention and are invulnerable to countersuit have advantages in patent litigation over practicing companies. These characteristics enable NPEs to more credibly threaten to exercise the rights conferred by a patent. Privateering provides a means by which large companies can enjoy these same advantages.

NPEs, especially the aggressive ones, that seek to generate returns on IPR-protected technology through either licensing and/or litigation upset theories that large firms benefit the most from IPRs.¹³² NPEs typically realize their legally-based competitive advantages by "seizing" the production of large R&D-intensive manufacturers, thereby posing a threat to the latter.¹³³ Not surprisingly, NPEs challenge the established theoretical understanding of the functioning of technology markets¹³⁴ -- except when the NPEs in the form of privateers act on behalf of a corporate entity, and then the activity can be viewed in a nearly opposite light.

NPEs typically attack their targets by employing three different strategies: by threatening legal injunctions, pressing for damage awards, and creating long-term switching costs.¹³⁵ Contingent on the strategy, the type of patent an NPE deploys should differ. For example, a patent's technological sophistication¹³⁶ should matter if the NPE seeks to win large awards in an infringement litigation, or if the NPE wants to create difficulties for its target in inventing around the NPE's patents.

For privateers, patent quality might not matter as much, and switching costs do not need to be long term, if the goal is to create short-term pressure on the target by legal means.¹³⁷ Lerner's¹³⁸

¹²⁹ Ashish Arora and Alfonso Gambardella, *Markets for Technology and Their Implications For Corporate Strategy*, *Industrial And Corporate Change* (2001), 10(2), 419–451.

¹³⁰ See, Marco Iansiti, *Technology Integration: Making Critical Choices in a Dynamic World*, Harvard Business School Press (1997), Boston, MA.

¹³¹ See, Constantinos Markides and Paul Geroski, *Fast Second* (2005) 5-6. John Wiley & Sons: San Francisco, CA.

¹³² Reitzig, *supra* note 31 at 2.

¹³³ See, Markus Reitzig, et al. *On Sharks, Trolls, And Their Patent Prey—Unrealistic Damage Awards And Firms' Strategies Of Being Infringed*, *Research Policy* (2007) 36, 134–154, and Joachim Henkel and Markus Reitzig, *Big Picture—Patent Sharks*, *Harvard Business Review* (2008), 86,129–133.

¹³⁴ See, Granstrand, *supra* note 28 for a discussion of corporate views on and strategies related to NPEs prior to the acceleration of NPE litigation from the mid-2000s onward.

¹³⁵ Henkel and Reitzig, *supra* note 140.

¹³⁶ Technical sophistication should generally offer some advantages in invalidation efforts.

¹³⁷ Reitzig, *supra* note 31 at 4.

¹³⁸ Henkel and Reitzig, *supra* note 113.

study of the litigation of financial innovations, notably by NPEs, finds that aggressive NPE patents are highly cited, suggesting that the quality of NPEs' ammunition is relatively high. Not surprisingly, it has been predicted that NPEs will continue to receive more venture capital, especially as their professionalism increases.¹³⁹

2.2.2 Commercial Objectives of Indirect IPR Exploitation Sponsorship

IP Privateers are a species of NPEs, just as classical privateers were a species of pirates. The privateer's own goals are easily understood – cash obtained through a litigation damage award or settlement in the manner of an aggressive NPE. For a privateer, the job of asserting an IPR against a target does not differ much whether the privateer is acting on his account or acting on behalf of a sponsor.¹⁴⁰ The sponsor's objective, like any commercial actor, is also monetary – albeit not immediately from the litigation, but rather from the changed competitive landscape brought by the litigation. In essence, the sponsor's rewards are consequential rather than direct.

Through interactions between privateers who can exploit IP assets in accordance with their sponsor's plans, IP privateering has evolved “alternative patterns of behavior consistent with their newly perceived evaluation of costs and benefits.”¹⁴¹ A departure point for IP privateering is the recognition that one does not necessarily need to own an IP asset in order to employ it beneficially. In accord with North's analysis, managers and investors have assessed the gains to be derived from re-contracting within the existing institutional framework compared to the gains from devoting resources to altering that framework.¹⁴² The emergence of IP privateering can lead to a change in the competitive paradigms followed by firms, especially in the early adoption period when knowledge of privateering remains relatively low and countermeasures are unavailable or ineffective.

To understand IP privateering, one may need to recalibrate the sensitivity of the instrument that one uses to gauge commercial affairs. IP privateering begins to make sense when one recalibrates the currency unit from the millions at stake in a typical NPE litigation to the billions at stake among the world's major commercial actors. For a company with an annual turnover of several billion, the prospect of a court judgment involving a few million is more of an irritant than a major concern, a financial risk only and not a commercial threat or business risk. But while a given litigation's immediate costs may be inconsequential at the billion-level filter, the consequences of such litigations may implicate serious sums by any reckoning.

Assume, for example, that two large companies are competing fiercely for a large supply contract with a huge customer, with success uncertain for either company. Assume further that

¹³⁹ Reitzig, *supra* note 31 at 17.

¹⁴⁰ The privateer might act with greater restraint when acting on behalf of a sponsor who may possibly want only a proscribed list of targets attacked.

¹⁴¹ Reitzig, *supra* note 31 at 17.

¹⁴² *Id.*

one company is perceived to be stronger in IP rights than its competitor, and assume that one of the customer's ultimate IP objectives is avoiding the threat of an injunction for anything received from the supplier and integrated into the customer's products. In this scenario, either competitor could sponsor a privateer. Neither company would want to sue the other directly, since this could well irritate the prospective customer, causing more harm than good. Many large customers are justifiably horrified at the prospect of their suppliers suing each other, as a likely result might be an injunction that knocks one or both them out of the ability to supply the customer with components. The company perceived as weak on IPRs could sponsor a privateer to knock down the other company's higher reputation. Conversely, the company perceived to be strong in IPRs could sponsor a privateer to underline its IP rights strengths to the customer. The litigation here is used not to drive the other company out of business or even to cause it to redesign its products but instead to make an obvious point to the potential customer about vulnerabilities.

As another example, assume that an incumbent's market position is being etched away by an upstart competitor employing a replacement technology. Assume that their technologies are sufficiently different that neither company's patent portfolio has much relevance to the other company's products. This pattern would also be ideal for privateering. After all, neither competitor holds any IP rights that it could effectively use against the other since their respective portfolios focus on different technical paradigms. Employing patents against the other company essentially requires obtaining patents from a third party anyway. Of course, the incumbent would likely prefer not to sue the upstart openly with a purchased IPR since this might signal to the market that the incumbent had exhausted other commercial solutions. The incumbent could use privateering as a method for smoothing out the replacement curves for the new technology, and if the company holding the replacement technology was small, then the larger incumbent might be able to employ various techniques for extending its own technology while it transitioned to the replacement technology. This scenario assumes that the incumbent company's resources greatly outstrip the upstart competitor, but if the upstart was sufficiently well funded, it could also sponsor privateering against the incumbent as a means for administering a *coup de la mort* to the old technology and possibly the incumbent as well.

Assume, for the sake of another example, that a group of companies have each assembled huge stockpiles of patents under a defensive patenting strategy.¹⁴³ Each company views its patent armamentarium as an instrument of mutually assured destruction, *e.g.*, if one company sues another for patent infringement, then retaliation is guaranteed. But what happens when one of the companies is sued for infringement by an entity that does not announce itself as being affiliated with one of the other companies in the group? Does the company sued retaliate,

¹⁴³ David C. Mowery & Nathan Rosenberg, *Paths of Innovation: Technological Change in 20th-Century America* 17 (1998). (The authors comment that the Supreme Court's 1908 decision in *Continental Paper Bag v. Eastern Paper Bag Co.*, 210 U.S. 405, 429 (1908), confirming that a patent owner need not practice a patent to sue for infringement of it, encouraged firms to patent defensively while also licensing out technology and patents).

knowing that it might be viewed by its peers as “the one who started the war”? And who does it sue? Or does the company that’s been sued take it lumps in litigation, finding that its vast patent portfolio is essentially useless against the NPE that has sued it?¹⁴⁴ In terms of covering its tracks, what if the sponsoring company is also sued or listed among the announced licensees of the privateering plaintiff?¹⁴⁵

Some companies dominate their markets so completely that employing the company’s IP rights portfolio risks problems with the competition authorities.¹⁴⁶ Thus, the company’s IP rights cannot operate as fully as they would if the company held a smaller market position. When the market dominant company finds itself in a situation where another company would typically employ its own IP rights against a competitive threat, the market dominant company may have little choice but to sponsor a privateer to clear away a competitive threat. Of course, sponsorship of the privateer needs to be done in a manner that will not provoke the competition authorities.

A prospective sponsor may need to find the IPRs ultimately deployed by its privateer(s). The sponsor may want to undertake such a search well prior to making arrangements with the privateer. As discussed below, the US present enjoys a patent oversupply and a variety of sophisticated tools are nowadays available that greatly simplify the task of finding useful third-party patents. If the sponsor needs to help the privateer acquire the IPRs to be asserted, then the sponsor should consider if the newly acquired patents transfer to an entity controlled by the privateer or if they stay with the third party who presently owns them but under the control of the privateer? One can imagine environmental factors (stealth considerations) that would suggest keeping the newly acquired patents in the hands of a third party.

For some corporate sponsors, privateering may even be cheaper than buying and asserting patents directly. If the party owning the patents is agreeable, the costs of privateering could be lower because the sponsor need only spend enough money to motivate the patents’ owner to sue the competitor. Hamstringing, distracting and embarrassing the competition is often the sponsor’s goal, rather than collecting a large damages award. Because privateering is stealthy, the litigation could continue for a long time before the target realized, if ever, who sponsored the litigation. Thus, while one company is distracted, disrupted and embarrassed by the litigation, the other party has no corresponding problems and can focus on its business.

2.3 Methodology

¹⁴⁴ A patent grant does not confer a positive right to practice an invention but only the right to exclude others from making, using, or selling the patented inventions, as claimed. *See*, 35 U.S.C. § 287 (2006) *But see*, *Fed. Trade Comm’n, To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy* 33 (2003), available at <http://www.ftc.gov/os/2003/10/innovationrpt.pdf> (“Defensive patenting is primarily motivated by a desire to ensure freedom to operate and includes the use of patents as bargaining chips in cross-licensing negotiations.”).

¹⁴⁵ The sponsor’s licensing costs just move funds from one pocket to the next minus a small transaction fee.

¹⁴⁶ IBM is possibly one example in the US and possibly more so in Europe.

The methodology here has focused on exploratory research, employing various techniques for probing the possible range of IP privateering activity. Once a greater data set of privateering cases has become available, then much more sophisticated empirical analysis can be conducted. While pockets of information exist about particular privateering instances, no one seems to have previously noticed the commonalities among these cases or sought to explain them within a larger strategic paradigm. One hopes that as knowledge of the privateering strategy circulates that others will contribute new privateering instances that have not been previously known,¹⁴⁷ and once a richer set of data has been developed, then a more elaborate economic analysis can be performed.

As Granstrand has observed, law and economics often follow differing methodologies while attempting to find answers to common problems.¹⁴⁸ Economics tends to focus on the aggregate while law tends to focus on specific instances. Thus, one discipline tends to start high and work downward while the other discipline starts small and works up. The IP field lends itself to hybrid approaches. Among other things, IP rights are legal rights that have significance only so long as they can be enforced in court while the motivations for using these rights are almost entirely economic. Thus, the hybrid nature of the IP field arises from its fundamental elements.

Given the exploratory nature of this research, it seems premature to develop new legal or economic theories. Turning to American legal realism, I would expect the legal system not to take the lead in shaping new laws related to IP privateering and to rely upon the considered wisdom of others, at least as an initial strategy for dealing with privateering cases. Consequently, it seems essential that more data related to privateering become available for subsequent rigorous economic analysis and thoughtful consideration. The asymmetries possible in privateering between the sponsor and the target would seemingly constitute a good first step for analysis once additional data becomes available. As has been noted at various points in this article, much of privateering aligns with existing economic theory related to the benefits of IP assets to large firms but in a way that may ultimately shed new light on aspects of open innovation at least with respect to IPRs.

Methodologies such as questionnaires and structured interviews have not seemed applicable for this research because many IP managers are not yet aware of the strategy and those IP managers who are aware of the strategy generally have an interest, and possibly a legal obligation, in not spreading information about it. First, an IP manager's knowledge would tend to have arisen from a privateering operation that his firm conducted and one still possibly not known by the target, hence the manager has everything to lose and nothing to gain by discussing the strategy. Second, most IP managers, even IP managers whose firms employ the strategy

¹⁴⁷ Many of the managers and practitioners contacted for this research declined to participate on the grounds of confidentiality. As more information about the strategy becomes available, managers and practitioners are likely to become less concerned, albeit not unconcerned, with certain aspects of confidentiality.

¹⁴⁸ See, Granstrand, *supra* note 16.

themselves, would prefer that no one else knows about it. One would not likely expect the IP manager for a major corporation to appear in a public forum, for example, and provide detailed instructions to other companies' IP managers on how to go about privateering. In a similar vein, it seems unlikely that a questionnaire or structured interview would have unearthed the funding sources behind Intellectual Ventures, which came to light in a recent court case, and has been included in Appendix 1. Consequently, the methodology of gleaning existing court litigations for nuggets of information, which time consuming may in some situations serve as a robust data source.

Comparative case analysis has not been formally conducted because no cases have yet been found where the sponsor was revealed and faced counterclaims by the target.¹⁴⁹ Thus, of the known privateering cases, the sponsor has achieved a consequential benefit from all of them, albeit to varying degrees. If privateering were to become more common as a strategy, then not only will there be more cases, but there will likely be a great diversity among the cases that lends itself to a comparative analysis. Similarly, if the raw investor data becomes available, then a great deal of analysis can be performed on investor-side IP privateering.

2.3.1 Tracing the Evolution of Indirect IPR Exploitation

IP privateering likely arose from a combination of several independent corporate practices in an organic manner somewhat resembling the evolution of a new virus from distinct parents.¹⁵⁰ Geneticists use the term "F₁ Hybrid" for the first filial generation of a new plant or animal that results from a cross mating of different parental types. Because of the sponsors' needs for secrecy, one could assume that knowledge of privateering has remained within a fairly closed population comprised of sponsors and their agents and possibly targets and their agents.¹⁵¹ Thus, if one knew the F₁ Hybrid for IP privateering, then one could track the spread of this strategy among a relatively small population of commercial actors in much the same way that geneticists and epidemiologists track the spread of a new disease.¹⁵² One could imagine that knowledge of privateering among commercial actors has largely spread by word of mouth, with most recipients either having an express or implicit obligation of confidentiality. This approach would assume, of course, that privateering did not arise concurrently among various independent actors.¹⁵³

Some commonalities have been observed among the IP privateering cases discussed herein. Many of the known privateering cases have involved executives who have worked together or

¹⁴⁹ Somewhat excluding the *IMS* case, which was conducted for a relatively small amount of money by Intel.

¹⁵⁰ Many of these likely causes are discussed Section 3.1 below.

¹⁵¹ And among targets, only those targets who discovered that litigation against them had been sponsored. It is also possible that lawyers representing a target may come to know about privateering but under an "attorneys eyes only" discovery protective order that prevents the attorney from sharing the information freely with his client.

¹⁵² See, e.g., Joseph W. Foxell, Jr., *The Severe Acute Respiratory Syndrome Epidemic: Everything You Wanted to Know About SARS but Were Afraid to Ask*, American Foreign Policy Interests, 25: 247 (2003).

¹⁵³ See, Malcolm Gladwell, *In the Air, Who says big ideas are rare?*, New Yorker, May 2008, (http://www.newyorker.com/reporting/2008/05/12/080512fa_fact_gladwell?currentPage=all).

have come from organizations that have privateered against competitors. As one might expect for a strategy largely held in secret, these commonalities relate to particular persons. The *IMS* case discussed below was conducted by Intel during Peter Detkin's tenure there. The *SCO* case strategy was arguably formulated by Microsoft during a time when Nathan Myhrvold and Ed Jung worked for the company as executives. Myhrvold, Jung, and Detkin were all co-founders of Intellectual Ventures. One could imagine that a fuller understanding of intersecting career paths might lead to the uncovering of further connections between corporations that have engaged in privateering. Micron, Microsoft, and IV share some of the same private practice counsel, and Micron's knowledge of privateering may have come from one of these shared attorneys. Similarly, Melissa Finocchio, the head of litigation at IV, is the former head of litigation at Micron. Thus, Micron is linked into this privateering group.

In any event, it does seem possible to track relationships among IP actors using a similar methodology to epidemiology when the number of cases is relatively low and appears to have constraints that would generally impede rapid growth of the strategy. For IP privateering, the factor that provides its greatest impediment to rapid growth has been the long-standing need for its sponsors to retain knowledge of the strategy in confidence. But these commonalities do not mean that the privateering strategy cannot grow significantly larger; one could hypothesize that like an epidemic, the number of cases could reach a tipping point where the strategy spreads rapidly among the population of IP actors. The environment favorable to the production of the IP privateering is known, regardless of whether the strategy arose from a single actor or among multiple independent actors. The factors contributing to the rise of privateering are: increasing IPR competition among companies, corporations' histories of achieving competitive goals indirectly via third parties, the conventional application of stealth in corporate IPR matters, the growth of the IPR markets, and the growth of various indirect IPR uses.

2.3.2 Electronic Detection of Indirect IPR Exploitation

With sufficiently large computing resources, one might be able to detect many of the indirect IPR cases among US IPR litigations. First, one would sort all the litigations by their cause of action and remove all the non-IP law cases. For the US, this would also mean examining state court cases related to trade secrets and common law trademark cases. These would seem to be unlikely cases for indirect IPR exploitation, but it is possible for just about any IP cause of action to serve the sponsor's purposes.¹⁵⁴

In the late 2000s, the share of all high-tech patent suits brought by NPEs had risen to 20% of the total number of infringement litigations.¹⁵⁵ For some product categories, the proportion of suits brought by aggressive NPEs as compared to all suits has been much higher.¹⁵⁶ Indirect IPR

¹⁵⁴ *SCO* was a copyright case.

¹⁵⁵ Chien, *supra* note 41, at 1604.

¹⁵⁶ Yen, *supra* note 96, at 2 (“[V]irtually all of the litigation activity has been with nonpracticing entities with no appreciable business of making or selling products or services.”).

cases, including IP privateering cases, are a species of NPE litigations, so it is against this background that one would begin separating out the privateers from the litigations that were simply brought by unaffiliated NPEs to collect large sums of money and nothing more.

The pre-litigation behavior of patent plaintiffs has been examined to test the extent to which privateering could be detected electronically using various databases. This examination used US patent plaintiffs having the LLC corporate form as a proxy for all potential privateering plaintiffs. The LLC is a nearly perfect corporate form for privateering, as most jurisdictions offer maximum privacy for businesses having this form. In this study, it has been assumed that a change in parent ownership recorded at the USPTO would likely represent a change of control, to some degree, over the asserted patents and possibly signal the presence of a sponsor.

From January 2008 until September 2010, some 448 companies having the LLC form filed one or more patent lawsuits against one or more defendants. Collectively, these plaintiffs sued nearly an order of magnitude more defendants. Some of these litigations were inapplicable for various reasons (*e.g.*, false marking lawsuits seem unlikely to be privateering cases). This left a pool of some 431 plaintiffs. Of these, 169 plaintiffs (or 39.2%) had not recorded a new assignment in the 12 months prior to litigation, while 262 (or 60.8%) had recorded an assignment transaction in the 12 months prior to litigation.

Of course, one can assume that only a fraction of the 262 patent plaintiffs having ownership changes represented indirect IPR cases, and still fewer of these indirect IPR cases privateers. More common reasons for a pre-litigation change in assignment data would relate to factors such as litigation hygiene (*e.g.*, making sure that the patent is owned by the party filing the lawsuit, which solves problems such as the one suffered by Lans in his litigation¹⁵⁷) and/or creating new legal structures to limit any potential litigation fallout (*e.g.*, in the event that sanctions are obtained against the plaintiffs) and/or new structures to accommodate investors who are not privateers, *e.g.*, investors who just want to make money from a litigation. The 262 plaintiffs also include companies owned by professional NPE organizations, such as Acacia's subsidiaries, which accounted for 35 different plaintiffs.

But the ranks of the 262 plaintiffs contain ample room for indirect IPR applications, including privateers. In about 5% of the cases, the patents came directly, or nearly directly, from an operating company. The Round Rock litigations provide an example of this sort of privateering. These cases represent the least stealthy flavor of privateering, as previously discussed.

Sifting the remaining cases into pure NPE assertions versus stealthy privateers would comprise a major undertaking. The corporate records for each of these 262 plaintiffs could be further examined to determine precisely who were their managers and owners. This would entail

¹⁵⁷ *Lans, infra* note 219.

some expense as many state corporation offices do not provide this information free of charge.¹⁵⁸ Additionally, as previously noted, in many states it is possible for the manager of an LLC to be another company. Thus, one might possibly have to track down an order of magnitude more companies before finding the name of a real person. This person's name could then be checked against various employment and professional records to locate corporate affiliations.¹⁵⁹ In some states the names of a real person need never appear in an LLC's records. One would also want to examine the litigation files for each of the cases to see what information was revealed in discovery that was not subject to a discovery protective order. One might even want to interview defense counsel in these cases to see what information they could share regarding the litigants' motivations. Examination of the motions filed in the *Picture Frame Media* case, for example, while known as a privateering case by IV, revealed previously unknown details regarding how many rights IV retains for itself when it sells a group of patents to a third party.¹⁶⁰ Reviewing and assembling this information would be a monumental task, but its results would likely be very illuminating about the new era of highly capitalized aggressive NPE firms, at least some of whom are privateering for third parties.¹⁶¹

In the end, and with an ample budget for expenses,¹⁶² one would likely have a much better picture about which of the 262 cases involved indirect IPR usage by either plaintiffs or defendants, and from this group privateering cases could emerge. This approach would peel away the least stealthy privateering cases, but there would still be some privateering cases that would be extremely difficult to uncover, such as privateering cases that followed the pattern of the *Lans* case where the privateering IPR remained with its original owner, the original owner was unaware of the privateering, the case was litigated by contingency fee lawyers, with expenses provided by a group of anonymous investors. In such a scenario, one would have to find commonalities behind the members of the investment group, which might be possible if one could uncover their names, although this would be extremely difficult for many LLCs given that there are few requirements to record the names of their owners in public forums. A litigation target could, of course, use various litigation discovery requests to uncover much of this information for a specific litigation. The extent to which this information could become public would depend upon the operative discovery protective order issued by the judge in the case.

Chapter 3

IP Privateering Varieties and Limitations on Their Employment

¹⁵⁸ Delaware, for example, charges \$20 per record for this information, <https://delecorp.delaware.gov/tin/FAQ.jsp>.

¹⁵⁹ Of course, in some states, it is possible to have an attorney make these filings, which has been the case with the *Webvention* cases discussed below.

¹⁶⁰ The complete sales agreement was subject to a discovery protective order, but the motion itself described the sales agreement and provides one of the few publicly available descriptions of an IV patent sales agreement. IV is anecdotally known for using a highly restrictive confidentiality agreement.

¹⁶¹ Appendix 1 provides a list of some, but not all, of the investors in Intellectual Ventures.

¹⁶² A budget of \$50,000 for non-personnel expenses would likely be sufficient.

This section explores the extent to which privateering could be employed and provides a typology for this strategy along with examples of its application. While each of these types could be practiced with varying degrees of success, some of them may be hypothetical for the moment. The section begins with a discussion of the roots of privateering in contemporary corporate culture.

3.1 The Likely Roots of IP Privateering

The environment favorable to the production of the IP privateering is known, regardless of whether the strategy arose from a single actor or among multiple independent actors. The factors contributing to the rise of privateering are: increasing IPR competition among companies, corporations' histories of achieving competitive goals using third parties, the conventional application of stealth in corporate IPR matters, the growth of the IPR markets, and indirect uses of IPRs. The privateering strategy can be expected to become more common in the short term since these factors still predominate and since techniques for impeding the practice remain in their infancy.

The set of opportunities available to a company, and thus the kind of organizations that will arise, are constrained by the institutional framework,¹⁶³ which here comprises the complex IP ecosystem. The growth of IP markets has incrementally changed this institutional framework for companies in an analogous manner to the ways that a growing market enables business opportunities.¹⁶⁴ The opportunities provided by growing IP markets have incentivized managers and investors to develop new models that further facilitate the exploitation of IP assets.¹⁶⁵ IP privateering stands among these new models. Thus, managers and investors, acting entrepreneurially, have become a source of change.

Companies have increasingly engaged in ever more complicated and competitive strategies. Over the years, these strategies have included sponsoring purportedly independent actors in activities ranging from sponsored research (e.g., the Tobacco Institute)¹⁶⁶ to public advocacy on the corporation's behalf.¹⁶⁷ The phrase "regulatory capture" is nearly 100 years old.¹⁶⁸ In short,

¹⁶³ North, *supra* note 124.

¹⁶⁴ Frank Tietze et al. *Technology Market Intermediaries and Innovation*, 2011.

¹⁶⁵ *Id.*

¹⁶⁶ Tobacco Institute, Inc., the Council for Tobacco Research-U.S.A, Inc., and the Center for Indoor Air Research, Inc. were all closed as part of the *Master Settlement Agreement* between the National Association of Attorneys General and the major tobacco companies, 1998, 32 (http://www.naag.org/backpages/naag/tobacco/msa/msa-pdf/MSA%20with%20Sig%20Pages%20and%20Exhibits.pdf/file_view).

¹⁶⁷ See, e.g., Jill Richardson, *A List of Corporate Lobbying*, Organic Consumers Association, 2009 http://www.organicconsumers.org/articles/article_18394.cfm.

¹⁶⁸ See, Woodrow Wilson, *The New Freedom: A Call for the Emancipation of the Generous Energies of a People* (1913) ("Nevertheless, it is an intolerable thing that the government of the republic should have got so far out of the hands of the people; should have been captured by interests which are special and not general.") http://en.wikisource.org/wiki/The_New_Freedom:_A_Call_for_the_Emancipation_of_the_Generous_Energies_of_a_People.

companies, especially large ones, are accustomed to achieving their aims indirectly using third parties. Companies and governments have even worked together to develop believable narratives, often related to health and safety matters, as a competitive tool for impeding lower cost imports.¹⁶⁹ Much of the work of the WTO involves separating legitimate health and safety concerns from essentially fabricated ones.¹⁷⁰

Companies employ stealth, especially in IPR matters,¹⁷¹ although one can never know the full extent of corporate stealth tactics. Corporations, for example, routinely hide the details of their IPR licensing activities and maintain large collections of trade secrets.¹⁷² In IPR litigation, corporate patentees often use secrecy to increase “hold-up,” a term that refers to inflation in the patentee’s bargaining power due to uninformed choices made by the accused infringer.¹⁷³

The *IMS* case provides a representative example of corporate stealth in operation.¹⁷⁴ In June 1998, TechSearch LLC, an NPE linked to the Niro, Scavone law firm, sued Intel for patent infringement.¹⁷⁵ TechSearch had purchased the patent in suit from International Meta Systems Inc. (IMS), a small bankrupt company that had lost a competitive battle with Intel over a chip set that reportedly benefited Intel by some \$8 billion/year.¹⁷⁶

Using a shell company called Maelen Limited, Intel tried to buy the IMS patent by asking the bankruptcy court for an avoidance action against TechSearch that would return the patent to IMS.¹⁷⁷ An avoidance action allows a bankrupt estate to recover an asset if it can show that the purchaser paid less than a reasonably equivalent value.¹⁷⁸ Maelen even offered to pay the trustee’s administrative costs and fund the cost of litigating the avoidance action against TechSearch. Maelen further proposed that if the estate recovered the patent, it would be auctioned and Maelen would make a minimum bid of \$250,000 for the patent.¹⁷⁹

¹⁶⁹ See, Lori Wallach, Patrick Woodall, and Ralph Nader, *Whose Trade Organization?: A Comprehensive Guide to the World Trade Organization*, Second Edition (New Press, 2004)(The authors see the WTO as reducing national health and safety regulations and focus less on the trade barriers.).

¹⁷⁰ *Id.*, and see, also, the World Trade Organization’s “Technical Barriers to Trade” section; <http://tbims.wto.org/>

¹⁷¹ Ewing, *supra* note 71 at 69. (Patent transactions in the marketplace, in contrast, are often kept secret.)

¹⁷² *Id.* (“CFOs nervously roll IP licensing expenses into the costs of goods produced to avoid any public slip. Miniature versions of actual sales documents are publicly recorded to thwart greater disclosure. Creating a limited liability company to hold IP assets provides still greater uncertainty.”).

¹⁷³ Chien, *supra* note 41 at 351.

¹⁷⁴ Dean Takahashi, *Intel Takes Bold Steps To Outmaneuver Foe*, The Wall Street Journal, April 16, 1999. <http://www.cascadesventures.com/press/intel.html>

¹⁷⁵ *Techsearch LLC v. Intel Corporation* (ND Il, 1998), 1:98-cv-03923, and see, *Techsearch LLC v. Intel Corporation* (CDCal, 1998), 3:98-cv-03484-WHA; case later appealed on other grounds as *Techsearch LLC v. Intel*, 286 F.3d 1360 (CAFC, 2002).

¹⁷⁶ *Id.*, and Takahashi, *supra* note 190.

¹⁷⁷ *In re International Meta Systems, Inc.*, 1:98-bk-10782 (Txwke, 2002).

¹⁷⁸ See, 35 U.S.C. § 547.

¹⁷⁹ See, Dean Takahashi, *Intel Legal Ploy Angers Judge*, ZDNet, April 16, 1999, <http://www.zdnet.com/news/intel-legal-ploy-angers-judge/102090>.

These steps were all taken without informing the court about Intel's relationship with Maelen.¹⁸⁰ Before the court acted, however, IMS learned that Maelen was a Cayman Island shell corporation beneficially owned by the Bank of America for Intel. Thus, Maelen was formed by Intel to keep its identity secret from TechSearch, the bankruptcy court and the creditors, and to maneuver the bankruptcy court into taking action that would undermine TechSearch's ability to prosecute the patent infringement case against Intel. Maelen argued before the bankruptcy court that the patent was worth considerably more than TechSearch paid for it, while Intel in the infringement case had argued that the patent was invalid.¹⁸¹ The bankruptcy judge denied Maelen's motion and condemned Intel's actions. While Maelen provides an example where stealth failed for a large operating company, one could reasonably conclude that stealth has prevailed in other transactions, as there is no reason to believe that Maelen was the only time that an operating company used a shell company to camouflage its competitive objectives.¹⁸²

In the pro-IP era, companies have increasingly applied their IPRs as competitive tools for promotion of their business interests. Many companies have found that while the direct use of IPRs against competitors, *e.g.*, via lawsuits, are sometimes costly and counterproductive, less overt uses of their IPRs are significantly more productive. IBM, for example, reckons that the annual value of its IP portfolio is three times that of its licensing revenue from the portfolio because of the leveraging of those IP assets in business deals.¹⁸³ The myriad of new strategic and tactical possibilities sparked by changes in the IP marketplace and aggressive NPEs has also undermined certain long-held beliefs and practices in the patent system. Among other things, large patent portfolios have been effectively defused as weapons, defensively or offensively, in lawsuits brought by aggressive NPEs. Once one begins to think about less traditional ways of employing IPRs, it doesn't take long before one begins exploring increasingly indirect strategies tailored for particular scenarios.

The patent marketplace represents yet another factor contributing to the rise of IP privateering. The increasing ease with which patents can be bought and sold has provoked some concern and fear.¹⁸⁴ As described earlier, companies have found a number of ways to monetize

¹⁸⁰ *Id.*

¹⁸¹ *Id.*

¹⁸² For example, Intellectual Ventures has at least 1,500 shell companies. See Tom Ewing, *A Study of The Intellectual Ventures Portfolio In the United States: Patents & Applications*, 2nd Edition, Version 2.4 (May 2011)(Sample Report), at 7 (downloadable from <http://www.avancept.com/Publications.html>.)

¹⁸³ IBM launched an aggressive and successful licensing campaign that brought in over \$1 billion in revenue annually by 2003. See, Marshall Phelps & David Kline, *Burning the Ships: Intellectual Property and the Transformation of Microsoft 24–25* (2009) and see also Chetan Sharma, *What Is Your Patent Portfolio Quotient (PPQ)?* 3 n.2 (2007), available at <http://www.chetansharma.com/What%20is%20your%20Patent%20Portfolio%20Quotient.pdf>.

¹⁸⁴ See *e.g.*, *eBay, Inc. v. MercExchange, L.L.C.*, 547 U.S. 388, 396 (2006) (Kennedy, J., concurring) (“In cases now arising, trial courts should bear in mind that in many instances the nature of the patent being enforced and the economic function of the patent holder present considerations quite unlike earlier cases. An industry has developed in which firms use patents not as a basis for producing and selling goods but, instead, primarily for obtaining licensing fees. For these firms, an injunction, and the potentially serious sanctions arising from its violation, can be

patent portfolios initially developed for defensive purposes. American Express provides an example of the IP ecosystem in transition. The company developed a defensive program in response to business patent lawsuits filed after the *State Street* decision in 1998.¹⁸⁵ After initially protecting its IP assets defensively, the company ultimately opted to realize value from its portfolio directly.¹⁸⁶ These activities proved so lucrative that patent enforcement grew into a full line of business with its own profit and loss statement.¹⁸⁷ Similarly, the Xerox Corporation formed the Xerox IP Operations business line in 1998 to develop an active patent licensing program based on the company's patent assets.¹⁸⁸ Likewise, Lucent, prior to the company's acquisition by Alcatel, licensed patents to recoup the company's R&D investments.¹⁸⁹

The development of indirect IPR applications by firms has also likely served as a contributing factor to the development of privateering. Operating companies have learned that they can purchase patents in the IP marketplace to fulfill various strategic needs. When an operating company is sued by another operating company, it may defend itself by buying patents from the marketplace that it can then use in a countersuit.¹⁹⁰ One of the conventional reasons for having a defensive portfolio is to provide the portfolio's owner with a means for retaliation if it is sued. However, if the defendant holds no patents relevant to the plaintiff's business, the defendant may be able to find something useful in the patent marketplace. Several companies have successfully used this tactic to mitigate lawsuits brought against them. Intellectual Venture's Intellectual Ventures Video Preferences 3 LLC¹⁹¹ shell sold US Patent 5,410,344 to Verizon. The '344 patent was immediately put to work by Verizon in the form of a counterclaim against TiVo in an infringement lawsuit that was originally initiated by TiVo.¹⁹² In *Hewlett-*

employed as a bargaining tool to charge exorbitant fees to companies that seek to buy licenses to practice the patent.”).

¹⁸⁵ Evolving Marketplace, *supra* note 60, at 38 (statement of Tracey R. Thomas, Chief IP Strategist and License Negotiator, American Express Co.); *See e.g.*, *State St. Bank & Trust Co. v. Signature Fin. Grp., Inc.*, 149 F.3d 1368, 1369 (Fed. Cir. 1998).

¹⁸⁶ *Id.*

¹⁸⁷ *Id.*

¹⁸⁸ Kevin G. Rivette & David Kline, *Rembrandts in the Attic: Unlocking the Hidden Value of Patents*, 59–60 (2000).

¹⁸⁹ *See*, Rubenstein, *supra* note 43. Other companies have formed ventures to enforce their patents. Sisvel, for example, is a company that licenses patents of the consumer electronics company Philips, among others. *See*, “About Us: History,” Sisvel, <http://www.sisvel.com/english/aboutus/history>. US Ethernet Innovations was formed to assert the patents of the 3Com Corporation. U.S. Ethernet Innovations, <http://www.usethernetinnovations.com>. US Ethernet sued 23 companies in 2009 and 2010, including Hewlett Packard (HP), Sony, and Toshiba, and was later acquired by HP. Corporate Information: 3Com @ a Glance, 3Com, http://www.3com.com/corpinfo/en_US/index.html.

¹⁹⁰ Chien, *supra* note 41 at 344.

¹⁹¹ The Intellectual Ventures shell was originally named Aerosound LLC before a recordation of its name change was made with the USPTO on Feb. 17, 2010; *see*, Assignment History provided by USPTO at <http://assignments.uspto.gov/assignments/?db=pat> (search in “patent number” field for U.S. Patent No. “5410344.”)

¹⁹² It is uncertain precisely when Verizon bought this patent, as the transaction has not been recorded at the USPTO; however, the counterclaim was added on February 24, 2010, and Verizon asserts that all rights in the '344 patent have been acquired by a wholly owned subsidiary named Services Corp. *See*, Defendant's Answer to First Amended Complaint and Counterclaims at 15, *Tivo, Inc. v. Verizon Communication, Inc. et al.*, 2:09-cv-257-DF (ED Tex, 2009); *see also*, the USPTO assignment database that shows no patents assigned to “Services Corp.,” <http://assignments.uspto.gov/assignments/?db=pat> (search in “Assignee” field for “Services Corp”).

Packard v. Acer, Inc., Hewlett Packard filed an infringement suit against Acer in March 2007.¹⁹³ Acer, a Taiwanese company, subsequently bought several patents from the Industrial Technology Research Institute,¹⁹⁴ a Taiwanese research organization,¹⁹⁵ and then asserted the patents in a countersuit against HP.¹⁹⁶ The lawsuit was settled by mid-2008.¹⁹⁷ In *Matsushita v. Samsung*, Samsung defended itself in a patent infringement case by buying patents and then using them in a countersuit against Matsushita.¹⁹⁸ Samsung bought US 5,481,693 from SonicBlue, Inc.¹⁹⁹ several months before SonicBlue filed for Chapter 11 bankruptcy protection.²⁰⁰ Over the course of the litigation, Samsung also filed counterclaims related to patents that it had previously obtained from a German government agency.²⁰¹

In summary, IP privateering did not arise spontaneously but developed as a natural evolution from a combination of various long-term trends and conventional practices. The initial privateering case has not been identified but its identity would be helpful in tracing later privateering cases since secrecy has likely kept the knowledge of privateering to a relatively small set of managers and intermediaries.

3.2 IP Privateering Typology: Characteristics and Technique

The forms of privateering may be organized into a typology based upon a number of primary traits. Table 1 provides some key characteristics for IP privateering and also provides the range of possibilities for these characteristics. These characteristics will be discussed in detail below this summary table.

No.	Privateering Variables	Variable Possibilities
1.	Sponsor	Operating Company, Investor, Hybrid

¹⁹³ *Hewlett-Packard Co. v. Acer, Inc.*, No. 02-07-CV-103-CE, 2008 U.S. Dist. LEXIS 25952, at *3 (E.D. Tex Mar. 31, 2008).

¹⁹⁴ See, USPTO assignment database, <http://assignments.uspto.gov/assignments/?db=pat> (search in “patent number” field for U.S. No. Patents “5977626”, “6188132”, “6788257”, “6280021”, showing execution dates to Acer in September and July of 2007).

¹⁹⁵ Who We Are, Indus. Tech. Research Inst., <http://www.itri.org.tw/eng/about/article.asp?RootNodeId=010&NodeId=0101>.

¹⁹⁶ Erica Ogg, *Acer Sues HP Again Over Patents*, CNET News Blog (Oct 31, 2007, 3:40 PM PDT), http://news.cnet.com/8301-10784_3-9808687-7.html.

¹⁹⁷ Press Release, Hewlett Packard, HP and Acer Settle Patent Litigation (June 8, 2008), <http://www.hp.com/hpinfo/newsroom/press/2008/080608a.html>.

¹⁹⁸ Brief of Plaintiff at 5, *Matushita v. Samsung*, No. 02-336, 2005 U.S. Dist. Ct. Motions LEXIS 32374 (D.N.J. 2005).

¹⁹⁹ See, USPTO Assignment history for the ‘693 patent at <http://assignments.uspto.gov/assignments/?db=pat> (search in “patent number” field for U.S. No. Patent “5481693”, showing transfer to Samsung from SonicBlue on Nov. 14, 2002).

²⁰⁰ Eric Hellweg, *SonicBlue’s Bankruptcy: Big Media Wins*, CNNMoney.com (Mar. 27, 2003), <http://money.cnn.com/2003/03/27/technology/techinvestor/hellweg/index.htm>.

²⁰¹ See, USPTO Assignment history for ‘209 patent at <http://assignments.uspto.gov/assignments/?db=pat> (search in “patent number” field for U.S. No. Patent “5181209,” which was purchased from the German aerospace research center now known as Deutsches Zentrum für Luft- und Raumfahrt e.V.).

2.	Discretion Level	High, Moderate, Low
3.	Indirect Monetization Focus	Monetization via: (a) Change in Valuation/Stock Price (b) Change in Legal Infrastructure (c) Change in Technology Adoption Rate (d) Change in Business Innovation Adoption Rate (e) Change in Business Relationships (f) Licensing of a Larger IPR collection not involved in the privateering operation
4.	Privateer's Knowledge of Sponsor	Known to Privateer, Unknown to Privateer
5.	Sponsor's Control Level Over Privateer	Controlled, Uncontrolled
6.	Privateer Corporate Structure	Sole owner, Investor, Debtor
7.	Profit Sharing Structure	None, Flat, Percentage, Debt Repayment

Table 1. Privateering Typology

3.2.1 Variable: the Sponsor Types

Privateering requires a “sponsor.” For IP privateering, the sponsors may be operating companies and/or investors. Hybrid arrangements are possible, especially where needed financing levels exceed the amounts that a given operating company is willing to provide and/or when the operating company’s needs for discretion are extremely high.

3.2.2 Variable: Discretion Levels

“Discretion” is the essence of IP privateering, although different sponsors may have differing needs for discretion. The sponsor’s needs for discretion with respect to the public may range from extremely high to moderately low. In a few situations, the sponsor may even “hint” at its involvement as a signal for altering the behavior of other competitors. The sponsor’s needs for discretion could be expressed as a real number, but is shown here in three integer levels: high, moderate, and low.

In a less secretive case, for example, the sponsor can sell some of its own IP rights to a third party who then uses those IP assets against the sponsor’s competitors. The lawsuit will be brought under the name of the third party, and the sponsor may retain no legal title to the IP rights. Of course, the sponsor could possibly retain some interest in the litigation by contract.²⁰² In the case of patents, the sponsor might even provide the new owner with helpful items such as patent claim charts related to prospective targets.

²⁰² For many privateering operations, the sponsor can achieve its aims without receiving any financial return directly from the litigation.

In a more secretive case with respect to the public,²⁰³ the sponsor might conduct its own search for the perfect third-party patent to use against a competitor and then provide the seed money for the litigation, possibly without even buying the patent. The sponsor could help purchase the patent from its current owner and provide it to a trusted third party. In an even simpler case, the sponsor merely motivates the IPR's present owner to commence litigation against various targets. This last approach is not only the stealthiest, but also the cheapest. The sponsor could likely motivate the patent owner by payment of a fee or bounty, especially since the patent owner should collect additional funds from the target either as a damages award or litigation settlement.

3.2.3 Variable: Indirect Monetization Goals

“Indirect monetization” comprises another essential characteristic of IP privateering. In an indirect monetization, the privateer's litigation will indirectly benefit the sponsor in some way monetarily. Applicable indirect monetization goals comprise: diminishment (temporary or otherwise) of a target company's valuation; change (positive or negative) in the stock price of a public company target; change (positive or negative) in the adoption rate for a new technology; change in the business relationships between two or more parties, as a driver for larger licensing arrangements, and/or a change in the legal infrastructure. An indirect benefit of the *IMS* case discussed above was intended to be a reduction in litigation and potential settlement costs in a case related to an \$8 billion competitive battle in exchange for a \$250,000 purchase. The examples provided below offer further details regarding indirect monetization.

3.2.4 Variable: the Privateer's Operational Knowledge

The privateer's “knowledge” regarding the identity of the sponsor provides another characteristic. The levels of discretion listed above pertain to the general public. A separate characteristic is how much the privateer itself knows about the sponsor and its motives. The privateer does not necessarily need to know the identity of the sponsor, and the sponsor has an extra layer of security when even the privateer does not know who has sponsored the privateer or why.

Patent litigants do not necessarily know who has financed their litigation. Assume that a group of contingency fee lawyers approach a patent owner and offer their services to someone who is not undertaking his own licensing or assertion campaign. Many patent owners would likely jump at this opportunity. Of course, there are still high costs for bringing a litigation, even with contingency fee cases.²⁰⁴ Assume further that the lawyers who approach the patent owner also explain that they will absorb the litigation costs, but do not explain how.

²⁰³ And the target.

²⁰⁴ Litigation costs in corporate patent cases can run into the millions, but NPEs typically strive to keep litigation costs low. Among other things, settlements and damage awards comprise their only revenue sources, but even for

In 1997 Swedish inventor Håkan Lans sued nine major electronics companies alleging infringement of a soon-to-expire computer-related patent, US 4,303,986.²⁰⁵ The litigation went spectacularly awry and Lans was ultimately held personally responsible for the attorneys' fees for two of the electronics companies.²⁰⁶

In subsequent malpractice litigation, Lans claimed that the idea for litigating the patents did not come from him, but that he had been approached by third parties about the possibility of exploiting his patent.²⁰⁷ He further claimed that the lawsuit was financed by a group known as “the ‘986 Partners,” and that he did not otherwise know their identities.²⁰⁸ This malpractice litigation is still ongoing and privateering has not been specifically raised as an issue in the case. Nevertheless, the take-away for IP privateering is that one can theoretically arrange matters such that even the plaintiff does not know that another party has sponsored a litigation and arranged for payment of its expenses.

To add another layer of stealth, the sponsor could create a special purpose entity (SPE) in the form of a limited liability company (LLC) that itself funds the litigation. The sponsor could even attract other investors such that the LLC would not be a wholly owned subsidiary of the sponsor and thus avoid even more public reporting requirements, at least in some jurisdictions.²⁰⁹ There are likely various SPEs that sponsors can employ to further facilitate their needs in a privateering operation.

3.2.5 Variable: the Sponsor's Control Over the Privateer

The sponsor's “level of control” over the privateer comprises another factor in privateering. In some instances, the sponsor can locate a patent whose qualities are so finely attuned to its goals that the needs for controlling the privateer may be greatly diminished. Such situations obviously increase the sponsor's level of obscurity. Likewise, there are instances when the sponsor trusts the management of the privateer sufficiently that lower levels of control can be

these companies, the costs can still amount to several hundred thousand dollars. *See, e.g., Contingency Fee Patent Litigation*, Goldstein & Vowell LLP (“Patent cases often cost hundreds of thousands of dollars in out of pocket case expenses and court costs”); <http://www.gviplaw.com/Practice-Areas/Contingency-Fee-Patent-Litigation.aspx>
²⁰⁵ *See, Lans v. Gateway 2000, Inc. et al.*, Civil Action No. 97-2523 (D.D.C. 1997); summary judgment appeal heard as *Lans v. Digital Equipment Corp. et al.*, 252 F.3d 1320, (Fed. Cir. 2001).

²⁰⁶ Much of privateering is based on escaping liability due to legal formalisms. Lans' case highlights this point. Lans' company Uniboard and not Lans was found to own the patent, which was enough for the case to not satisfy the formal requirements for standing to sue – even though Lans' company shared the same corporate identification number as Lans' Swedish social security identification, and only existed as a Swedish company in the first place to satisfy Swedish government regulations related to self-employment. By the time Lans explained this to the court, he had essentially run out of time. *See, Id.* at 1326.

²⁰⁷ *See, Lans et al v. Adduci, Mastriani & Schaumberg, LLP. et al.*, 1:02-cv-02165-RBW (DDC 2002). (Note: I served on a panel established by Vinnova, the Swedish innovation agency, to investigate the *Lans* case on behalf of the Swedish government since Lans was a Swedish citizen who was believed to have been mistreated by the US legal system. Privateering, *per se*, was not explored in the investigation, but there were frequent accusations that something in the case was amiss. The Vinnova panel made no formal recommendations to the prime minister.)

²⁰⁸ *Id.*

²⁰⁹ Ownership structures are discussed further in “**Article 2**”.

applied. In all other cases, the sponsor may want or need some level of control over the privateer.

3.2.6 Variable: the Privateer’s Corporate Structure

The privateer’s “corporate ownership structure” comprises yet another characteristic and relates to the corporate form of the SPE used by the sponsor and the privateer to hold the IPRs. The sponsor may control the privateer by virtue of being an investor in the privateering SPE and/or the sponsor may control the privateer by virtue of being the privateer’s creditor.

The privateer by may be the sole owner of the SPE that attacks a given target on behalf of the sponsor. Sole owner here can mean something beyond legal ownership; it can also mean that the sponsor has no potential means for controlling the privateer beyond mutual self-interest. Such relationships are built on trust and/or the sponsor already holding all the rights (*e.g.*, a license²¹⁰) that it would ever need should the privateer engage in a different behavior than that preferred and anticipated by the sponsor.

In other embodiments, the sponsor maintains some mechanism for controlling the privateer. It has been observed that in many instances, the IPRs used for privateering are legally owned by one LLC that is in turn owned/controlled/managed by another LLC.²¹¹ In such instances, the sponsor could let the privateer serve a managerial role in the company that owned the IPR while retaining for itself a managerial role in the company that owned controlling interest in the IPR holding company.

A privateer need not necessarily be an NPE. But an operating company that acted as a privateer would put itself at risk of a countersuit by the target. Of course, where the plaintiff and the defendant operate in different industries or are otherwise dissimilar, then the privateer could be an operating company.

3.2.7 Variable: Profit Sharing Structure

The sponsor and the privateer may establish a “profit sharing structure” related to the privateer’s activities. For example, the sponsor and the privateer may have arrangements for sharing licensing royalties and litigation damages and settlements. In some instances, the sponsor will receive none of the privateer’s rewards while in other cases, the sponsor may be receive a percentage of the rewards, and in still other cases, the sponsor’s rewards will take the form of a debt repayment from the privateer.

3.3 Privateering Examples

²¹⁰ A broad non-exclusive license that covered the sponsor’s customers and subsidiaries would be sufficient in many cases.

²¹¹ Ownership structures are discussed further in “**Article 2**”.

This section provides further examples of IP privateering in operation and further illustrates the forms of indirect monetization possible through privateering. Although this section does not detail every logical combination from the Table 1 above, the section aims to provide enough examples to give the reader a feel for the power of privateering.

The example of IP privateering in the case of two companies competing for a large supply contract has already been provided. One twist on the competing suppliers example above comprises a new potential supplier using privateering as a way of nudging into an existing supply chain relationship by pointing out IP vulnerabilities of existing suppliers. The example of an incumbent who employs privateering as a means for smoothing out the technology replacement curve has also been provided. A further example of using privateering as a means for smoothing out a technology's transition to a new business model is provided below. Finally, the example of a company sponsoring a privateering action to circumvent anti-competitive laws has also previously been provided. This form of privateering might be employed more often in jurisdictions having strong anticompetitive laws and regulations, such as in Europe rather than the US, which could be perceived as having relatively weaker anticompetitive laws.²¹² A somewhat related use of privateering discussed below involves changing IP laws to make them more favorable to the sponsor's competitive situation.

3.3.1 Operating Company Objective: Change in Technology Adoption Rate

This privateering scenario applies both to efforts to change an adoption rate related to a new technology as well as the adoption rate related to a new business model. The examples provided here relates specifically to a change in business models but the approach could also be effective in terms of changing the adoption rate for a new technology.

The open source, or free software, business model had come to be perceived as a serious competitive threat to commercial software companies like Microsoft by the late 1990s.²¹³ To protect its \$32 billion in annual revenues,²¹⁴ Microsoft needed to develop a competitive solution to the threat posed by open source software. Some eight years later, Microsoft had developed a slate of business solutions for coping with open source software²¹⁵ while nearly doubling its

²¹² See, e.g., Alexis Jacquemin, *Abuse of a Dominant Position and Exclusionary Practices: A European View*, in *Revitalizing Antitrust in its Second Century: Essays on Legal, Economic, and Political Policy* (Eds. Harry First Eleanor Fox and Robert Pitofsky) 264-265 (Quorum Books 1991).

²¹³ See e.g., Andrew Leonard, *Linux At The Bat: Red Hat's Marc Ewing Steps Up To The Plate Against Microsoft In The Billion-Dollar Free-Software Ballgame*, Salon.com, Oct. 4, 1999 (available at: http://www.salon.com/technology/view/1999/10/04/marc_ewing/) (quoting Red Hat software's co-founder Marc Ewing as saying that in 1998 Red Hat's Linux product was not a competitive threat to Microsoft's NT product but that by 1999 it was a competitive threat.).

²¹⁴ Microsoft 2003 Form 10K Annual Report to the Securities and Exchange Commission at 11 (report available at <http://www.sec.gov/Archives/edgar/data/789019/000119312503045632/d10k.htm>).

²¹⁵ See e.g., Simon Edwards, Microsoft Director of Corporate Affairs in Australia, in a letter to the Australian Government on Feb. 7, 2011, stated, "You may be aware that a substantial body of open source code development already occurs in the Microsoft software platform." The letter goes on to offer Microsoft's support in complying

annual revenues to \$62 billion.²¹⁶ As a proxy for business anxiety, Microsoft's 2003 annual report mentions "open source" 19 times while Microsoft's 2010 annual report mentions open source just 10 times.²¹⁷

Microsoft's Annual Report for 2003 described the competitive threat from Linux,²¹⁸ an open source operating system, as:

Personal computer OEMs who preinstall third party operating systems may also license these firms' operating systems or Open Source software, especially offerings based on Linux. Variants of Unix run on a wide variety of computer platforms and have gained increasing acceptance as desktop operating systems, in part due to the increasing performance of standard hardware components at decreasing prices. The Linux open source operating system, which is also derived from Unix and is available without payment under a General Public License, has gained increasing acceptance as its feature set increasingly resembles the distinct and innovative features of Windows and as competitive pressures on personal computer OEMs to reduce costs continue to increase.²¹⁹

Against this competitive backdrop, some commentators have suggested that Linux and various open source cooperatives were subjected to something akin privateering. One example often cited is Microsoft's support of the SCO Group Inc. in its copyright battles against IBM and Novell relating to portions of Linux.²²⁰ In early 2003, Microsoft began paying some \$16.6 million to SCO for a Unix license, apparently becoming SCO's largest licensee.²²¹ The funds appear to have been delivered shortly after the litigation against IBM began. Microsoft also referred SCO to BayStar Capital and the Royal Bank of Canada, which made arrangements for

with an Australian government directive related to the use of open source software in government projects. Letter available at:

http://www.google.com/search?source=ig&hl=en&rlz=1G1TSND_ENUS422&q=http%3A%2F%2Fblogs.msdn.com%2Fcf-fs-filesystemfile.ashx%2F_key%2FCommunityServer-Components-PostAttachments%2F00-10-12-46-66%2FLetter-to-the-Special-Minister-of-State-re-the-Federal-Government_26002300_39_3B00_s-Open-Source-Policy.pdf&btnG=Google+Search&aq=f&aql=&aql=&oq= and see, The 451 Group, *Open Source Is Not a Business Model: How Vendors Generate Revenue from Open Source Software*, (2008) available from Microsoft's website and at: http://www.the451group.com/caos/caos_detail.php?icid=694.

²¹⁶ Microsoft 2010 Form 10K Annual Report to the Securities and Exchange Commission at 36 (report available at <http://www.sec.gov/Archives/edgar/data/789019/000119312510171791/d10k.htm>).

²¹⁷ Compare Microsoft 2003 Form 10K, *supra* note 231 with Microsoft 2010 Form 10K, *supra* note 233. The PDF forms of the reports are easily searchable.

²¹⁸ See, *The Story of Linux*, available at <http://www.linuxfoundation.org/>.

²¹⁹ Microsoft 2003 10K, *supra* note 231 at 7.

²²⁰ See, *SCO Grp, et al v. Intl Bus Mach Inc.*, 2:03-cv-00294-TC (D. Utah 2003) and *SCO Grp v. Novell Inc.*, 2:04-cv-00139-TS (D. Utah, 2004).

²²¹ John Foley, *Microsoft And SCO Group: What's So Secret?*, Information Week, March 08, 2004, <http://www.informationweek.com/news/18311295>.

more than \$50 million of investment in SCO.²²² “It was evident that Microsoft had an agenda,” Lawrence Goldfarb, managing partner of BayStar, later told the *New York Times*.²²³ SCO apparently spent most of the cash on the litigations and eventually declared bankruptcy in September 2007. SCO did not prevail in these litigations.²²⁴ Of course, the success of a privateering operation is the extent to which the sponsor (not the privateer) achieves its objectives.

The SCO litigation obviously did not eliminate open source as a competitive threat to Microsoft but did likely provide consequential benefits to Microsoft. The question would be the degree to which the SCO litigation played a role in giving Microsoft additional time to develop a fuller competitive response to open source software and whether it helped the company better develop a narrative pointing out deficiencies in the open source business model.²²⁵ One could imagine the issues raised by the SCO litigation playing a part in long-term contracts negotiated by commercial vendors with computer manufacturers, businesses, and government agencies such as school districts. Among other things, an open source product would be unlikely to be in a position to provide meaningful indemnities in the event of litigation like SCO. By comparison, Microsoft could point out that it indemnified its products and stood ready to support its customers in the event of difficulties, including legal ones, and would not leave them to fend for themselves.

As noted above, over the *SCO* time period, Microsoft’s revenues doubled from some \$30 billion to over \$60 billion. Victories against the open source movement do not likely explain the whole of this revenue growth, but they likely account for a not insignificant piece of it. Similarly, *SCO* provided only a portion of the company’s strategy for dealing with open source, and while more precise calculations would need to be done, it seems quite likely that *SCO* may have benefitted Microsoft by several billions.

Privateering may be employed to promote a new business model as well as to preserve an old one. RPX’s business model involves buying actual or potential “trolling” patents and licensing them to its clients. The company aims to help its clients avoid the problems of IP infringement litigation for a fraction of the costs that the member companies would spend in licensing or litigating the IPRs themselves. The company has grown rapidly, with annual revenues now

²²² Steve Lohr, *Technology; Investor’s Pullout Stirs Doubts About SCO Group*, *New York Times*, April 22, 2004; <http://www.nytimes.com/2004/04/22/business/technology-investor-s-pullout-stirs-doubts-about-sco-group.html>.

²²³ *Id.*

²²⁴ See, *SCO v. Novell* (<http://www.sco.com/scoip/lawsuits/novell/>) and *SCO v. IBM* (<http://www.sco.com/scoip/lawsuits/ibm/>); US Pacer shows both cases terminated in 2010 and 2007, respectively.

²²⁵ See e.g., the 451 Group, *supra* note 232 at 58 (commenting as early as 2008 that “Some open source purists will no doubt be dismayed that so much software distributed using open source licenses finds its way into commercially licensed products. More pragmatic observers will no doubt be encouraged by the widespread adoption of open source development and distribution principles. Either way, what our findings reinforce is that open source is a business tactic, not a business model.”).

exceeding \$65 million, and held its initial public stock offering in May 2011.²²⁶ RPX clients typically pay a fixed membership fee (*e.g.*, \$50 million) and are then free from IP litigation for any of the patents owned or acquired. RPX has signed up approximately 75 technology companies as clients.

RPX was founded by John Amster and others in September 2008. Just prior to founding the company, Mr. Amster was IV's general manager of strategic acquisitions and vice president of licensing. RPX seems to practice the earliest business model advanced by IV, whether any real ties exist between the two companies is unclear. Some commentators originally suggested that IV itself would operate as "patent defense fund," taking potential "trolling" patents off the market and offering its investors freedom from certain IP infringement suits.²²⁷ Thus far, RPX has spent nearly \$250 million acquiring nearly 2,000 patents and controls them via several funds, such as RPX-LV Acquisition LLC and RPX-NW Acquisition LLC. RPX apparently also plans to operate a version of a catch-and-release program that will return the patents that it acquires to other potentially litigious owners while reserving licenses for its members.²²⁸

Kaspersky Labs, a Russian computer company, was sued for patent infringement by IPAT, LLC along with more than 20 other companies in September 2008.²²⁹ During the course of the lawsuit, at least 11 of the defendants became RPX clients, in part, because RPX had licensed the patents in suit from IPAT. In Dec. 2009, Kaspersky received a message from RPX introducing itself as a "solution" to Kaspersky's NPE litigation problems.²³⁰ Kaspersky also received several emails from RPX along similar lines and requesting a three-year membership in RPX for \$160,000.²³¹ The company continued receiving increasingly urgent emails from RPX, including one that implied that the IPAT litigation could only be terminated through RPX.²³² Kaspersky eventually contacted the FBI and requested that they investigate RPX for alleged criminal conduct, including mail and wire fraud, as well as RICO violations.²³³

The FBI does not appear to have acted on Kaspersky's request, and the extent to which RPX "collaborates" with NPEs, if at all, is not presently known. However, one could imagine that a sponsor of a new business model could actively encourage the very behaviors that the business was intended to curtail as a means for promoting the new business. Depending on the business

²²⁶ Lynn Cowan, *Renren, RPX Corp. Lead U.S. IPO Slate While Boingo Falts*, Wall Street Journal, May 4, 2011 <http://online.wsj.com/article/BT-CO-20110504-714117.html>.

²²⁷ On a subtler level, this is what IV has done.

²²⁸ Such a step not only increases the company's revenue, but also solves a "free rider" problem in which non-members benefit from RPX's patent acquisitions.

²²⁹ *Information Protection and Authentication of Texas, LLC v. Symantec Corp. et al.*, 2:08-cv-00484-DF (ED Texas, 2008).

²³⁰ Kasperky's letter to the FBI, reproduced on the GameTime IP blog, May 31, 2011,

<http://gametimeip.com/2011/05/31/patent-aggregator-rpx-accused-of-extortion-racketeering-wire-fraud/>

²³¹ *Id.*

²³² *Id.*

²³³ *Id.*

model involved, the relationship between the sponsor and the privateer(s) could potentially even be a permanent one.

3.3.2 Investor Objective: Outsourced Licensing

Intellectual Ventures (IV),²³⁴ which holds at least the world's fifth largest patent portfolio,²³⁵ has received some \$2 billion in licensing fees for its portfolio.²³⁶ Some portion of these licensing fees has possibly been generated by privateering using small groups of formerly owned IPRs. IV has sold small portions of its portfolio, typically to third-party NPEs. Many of the patents sold by IV have ended up in litigations brought by their new acquirers. Patents formerly owned by apparent IV shells Viviana LLC,²³⁷ Gisel Assets KG LLC,²³⁸ Kwon Holdings Group LLC,²³⁹ SF IP Properties 24 LLC,²⁴⁰ Ferrara Ethereal LLC,²⁴¹ and Mission Abstract Data LLC²⁴² have been employed in patent infringement litigations respectively brought by Picture Frame Innovations LLC,²⁴³ Patent Harbor LLC,²⁴⁴ Oasis Research LLC,²⁴⁵ InMotion Imagery Technologies, LLC,²⁴⁶ Webvention LLC,²⁴⁷ and Mission Abstract Data LLC.²⁴⁸ These litigations have been

²³⁴ One could possibly speculate how IV itself is a privateering operation conducted by its corporate sponsors, but this possibility will not be further explored in this paper.

²³⁵ IV's funders include many practicing companies such as Microsoft, Intel, Sony, Apple, eBay, and Google. *See e.g.*, Ewing, *supra* note 198 at 7 and Nicholas Varchaver, *Who's Afraid of Nathan Myhrvold?*, *Fortune*, July 10, 2006, at 110, 112.

²³⁶ Joff Wild, *IV Revenues Hit \$2 Billion As Recent Deals Show Firm's Links With Other Major Market Players*, IAM blog, March 11, 2011, <http://www.iam-magazine.com/blog/Detail.aspx?g=03a44df3-787b-405e-9d5e-69136e93a5b3>.

²³⁷ *See*, Assignment History provided by USPTO at <http://assignments.uspto.gov/assignments/?db=pat> (search in "Assignee" field using "Viviana," and *see* Ewing, *infra* note 479).

²³⁸ *See*, Assignment History provided by USPTO at <http://assignments.uspto.gov/assignments/?db=pat> (search in "Assignee" field using "Gisel Assets" and *see* Ewing, *infra* note 479).

²³⁹ *See*, Assignment History provided by USPTO at <http://assignments.uspto.gov/assignments/?db=pat> (search in "Assignee" field using "Kwon Holdings" and *see* Ewing, *infra* note 479).

²⁴⁰ *See*, Assignment History provided by USPTO at <http://assignments.uspto.gov/assignments/?db=pat> (search in "Assignee" field using "SF IP Properties" and *see* Ewing, *infra* note 479).

²⁴¹ *See*, Assignment History provided by USPTO at <http://assignments.uspto.gov/assignments/?db=pat> (search in "Assignee" field using "Ferrara Ethereal" and *see* Ewing, *infra* note 479).

²⁴² *See*, Assignment History provided by USPTO at <http://assignments.uspto.gov/assignments/?db=pat> (search in "Assignee" field using "Mission Abstract" and subsequent assignment from Intellectual Ventures Audio Data LLC, and *see* Ewing, *infra* note 479. IV also continues to sell patents, such as the recent sale from IV's Sinon Data LLC to Personal Voice Freedom LLC, a company apparently associated with Charles Eldering's Technology, Patents, and Licensing Inc.

²⁴³ *Picture Frame Innovations, LLC v. Eastman Kodak Company et al.*, 1:2009-cv-04888 (ND Ill 2009).

²⁴⁴ *See, e.g., Patent Harbor, LLC v. LG Electronics, Inc. et al.*, 6:2010-cv-00436 (ED Tex, 2010).

²⁴⁵ *Oasis Research, LLC v. Adrive, LLC et al.*, 4:2010-cv-00435, (ED Tex 2010).

²⁴⁶ *See, e.g., InMotion Imagery Technologies, LLC v. JVC Americas, Corp. et al.*, 2:2010-cv-00474 (ED Tex 2010).

²⁴⁷ *See, e.g., Webvention LLC v. Adidas America Inc. et al.*, 2:2010-cv-00410 (ED Tex 2010).

²⁴⁸ *See, e.g., Mission Abstract Data LLC v. Beasley Broadcast Group Inc. et al.*, 1:11-cv-00176-LPS (D. Del 2011). Note that a Rule 7.1 filing in *Mission Abstract Data* states that the sole owner of this plaintiff is Digimedia Holdings, LLC, a Delaware entity formed in January 2011 just a few weeks prior to the assignment of patents from Intellectual Ventures Audio Data LLC. One could conclude that Mission Abstract Data has different owners now than it did prior to the transaction with Intellectual Ventures Audio Data LLC. Mission Abstract Data LLC was formed as a company in April 2007.

brought against companies such as Kodak, Hewlett Packard, Samsung and CBS Radio. Don Merino, senior vice president of licensing at IV, said the sales were a logical step for IV and generally denied that the sales related to privateering.²⁴⁹ “I have enough of a set of assets where it just makes sense to start turning inventory,” he told Dow Jones in a 2010 interview.²⁵⁰

Selling expiring assets makes perfect business sense, of course. Nevertheless, one could imagine that some of the defendants may have been led to view the litigations over one patent as a hint that they should consider taking a license to an even larger group of patents having a similar technical focus held by a third party. The patents being litigated are representative of a much larger portion of IV’s huge portfolio.²⁵¹ In addition, IV also purportedly offers licenses to its portfolio on a true-up basis to its investors. The sales and subsequent litigations may also serve as a prod to certain investors to pay their true-up license fees, which would provide yet another monetization rationale for the privateering effort.

3.3.3 Operating Company Objective: Outsourced Licensing

Micron Technology recently sold about one quarter of its highly regarded patent portfolio to Round Rock Research, LLC.²⁵² John Desmarais, a distinguished patent litigator, runs Round Rock.²⁵³ Micron has been circumspect about its relationship to Round Rock. The sale of 4,000-plus patents could be an event worth noting in quarterly or annual financial reports. However, Micron has yet to mention this sale, which has led to suspicion that the Round Rock patents are still tethered to Micron.²⁵⁴ By comparison, Micron sold many of these same patent assets a few years ago to a shell company known as Keystone Technology Solutions LLC.²⁵⁵ Keystone shared the same address as Micron Technology.²⁵⁶ Just prior to the Round Rock sale, many of the Keystone patents quietly migrated back to Micron and then to Round Rock. Desmarais recently conceded that Round Rock was a privateer, adding, “I’ve been called worse.”²⁵⁷

²⁴⁹ Stuart Weinberg, *Intellectual Ventures Patent Divestitures Continue*, Dow Jones Newswires, February 24, 2010, available at <http://wsj.com>.

²⁵⁰ *Id.*

²⁵¹ See, Ewing *supra* note 198.

²⁵² Zaretski, *supra* note 70 at 62; See also Carlyn Kolker, *Billion-Dollar Lawyer Desmarais Quits Firm to Troll for Patents*, Bus. Wk. (June 1, 2010), <http://www.businessweek.com/news/2010-06-01/billion-dollar-lawyer-desmarais-quits-firm-to-troll-for-patents.html>.

²⁵³ *Id.*

²⁵⁴ See, e.g., Micron Technology, Annual Report (Form 10-K) 8 (Oct. 26, 2010) (Micron’s only allusion to profits from IPR sales has been “In recent years, we have recovered some of our investment in technology through sales or license of intellectual property rights to joint venture partners and other third parties.”), <http://www.sec.gov/Archives/edgar/data/723125/000072312510000174/q4fy2010.htm>.

²⁵⁵ See, Assignment History provided by USPTO at <http://assignments.uspto.gov/assignments/?db=pat> (search in “Assignee” field under “Keystone Technology”).

²⁵⁶ *Id.* Compare the address listed for Keystone Technology Solutions with the contact address for Micron Technologies listed on Micron’s website: <http://www.micron.com/contact.html>.

²⁵⁷ Comment made during panel discussion of privateering at the Intellectual Property Business Congress, June 20, 2011, in San Francisco. A few minutes after making this comment, Desmarais declined to provide any details about the ownership of Round Rock to an NPR reporter, Laura Sydell and Alex Blumberg,

Round Rock filed an infringement lawsuit against the HTC Corporation in October 2010 and completed several large licenses.²⁵⁸ Round Rock's Rule 7.1 disclosure in the HTC litigation states that it has no parent corporation and that no publicly held corporation owns 10% or more of its stock.²⁵⁹ So, the precise relationship between Micron and Round Rock remains a mystery,²⁶⁰ although both Round Rock and Micron concluded large licensing arrangements with Samsung (\$280 million for Micron²⁶¹) at roughly the same time. Unsubstantiated reports suggest that Round Rock has been financed by Gemas Capital, Inc., which itself has a relationship with IPValue, a company heavily funded by General Atlantic and Goldman Sachs.²⁶² Thus, Micron's sale to Round Rock likely provided Micron not only with some monetary benefit in its own right but also initiated a privateering effort of some sort that has assisted in the monetization of the larger retained portions of Micron's portfolio.

3.3.4 Hybrid Sponsorship Objective: Outsourced Licensing & Reduced Adoption Rate

Heavy competition in the highly lucrative advanced mobile devices and smart phone market would seemingly make this area ripe for privateering.²⁶³ In sort, it would not be surprising for companies in this area to use IP rights to further their competitive goals, but given the intensity of the competition, it would also not be surprising for companies to somewhat distance themselves from those IPR assertions. Lawsuits involving the market's smaller players could drain their meager resources, distract management and serve to make the defendant appear as a less than suitable supplier/partner to large telephony operators.

For example, MobileMedia Ideas LLC (MMI) is one of the companies on the list of 262 litigants discussed below whose IP rights were acquired just prior to litigation. MMI, which was formed in January 2010,²⁶⁴ sued Apple, HTC and Research In Motion in March 2010 for patent

<http://www.thisamericanlife.org/radio-archives/episode/441/when-patents-attack> at program minute 28.15, July 28, 2011.

²⁵⁸ *Round Rock Research LLC. v. HTC Corporation et al.*, 1:2010-cv-00840 (D. Del 2010); court records show that the parties settled the dispute on April 12, 2011.

²⁵⁹ *Id.*

²⁶⁰ By contrast, General Electric has made little secret of its relationship with CIF Licensing LLC, a wholly owned subsidiary that has brought 11 patent litigations against a far greater number of defendants. *See, e.g., CIF Licensing d/b/a GE Licensing v. Agere Systems, Inc.*, 07-170-JJF (D. Del. 2010) and Phil Milford, *GE Licensing Wins \$7.6 Million Patent Award From LSI*, *Bloomberg*, Feb. 17, 2009;

<http://www.bloomberg.com/apps/news?pid=conewsstory&refer=conews&tkr=MOT:US&sid=a48zmrkP.LxI>.

²⁶¹ *See*, Micron Technology, *supra* note 261.

²⁶² *See*, Joff Wild, *Rumour Has It That Round Rock's Micron Purchase Is Reaping Big Rewards – UPDATE*, IAM blog, Nov. 15, 2010 (<http://www.iam-magazine.com/blog/detail.aspx?g=347b94b1-44b2-449d-8d7d-536f8c6470d5&q=Round+Rock#search=%22Round+Rock%22>).

²⁶³ The \$4.5 billion acquisition of the former Nortel patent portfolio by Rockstar BidCo LLC, a consortium that included Apple, Microsoft, EMC, Sony, Ericsson and RIM, indicates the significance of IPRs in this field. Joff Wild, *Inside the Nortel patent auction - this is exactly what happened*, IAM Blog, July 22, 2011, <http://www.iam-magazine.com/blog/Detail.aspx?g=fd52dac-7a09-4364-b526-d29147118b41>.

²⁶⁴ Delaware Corporations file 4761144 shows that MMI was formed on Jan. 4, 2010; <https://delecorp.delaware.gov/tin/controller>.

infringement related to smart phones.²⁶⁵ MMI's Rule 7.1 disclosure in the Apple lawsuit states that more than 10% of its stock is owned by MPEG-LA LLC, Nokia Corp and Sony Corp.²⁶⁶ MMI holds some 141 patents and applications, all of which were owned by either Nokia or Sony at the beginning of 2010.²⁶⁷ MMI likely represents a less stealthy form of privateering but one that is nevertheless distanced from the original IPR owners. As another example, the ICom GmbH & Co. KG litigations in Europe also possibly represent another privateering effort. ICom, which recently won a patent infringement case against Nokia,²⁶⁸ is purportedly owned by German patent attorney Bernard Frohwitter²⁶⁹ but the financing behind ICom is less certain, as ICom has reportedly been linked to Robert Bosch GmbH.²⁷⁰

3.3.5 Operating Company Objective: Change in the Law and/or Building Influence

As an extreme example of privateering, assume that a large company would like to change some aspect of IP law in a particular jurisdiction, but has trouble finding enough other companies that concur with the proposed change to make a persuasive case to the legislature. As part of its public relations campaign, the large company could privateer against other companies using IP rights whose litigation would raise the same or similar issues as the aspect of IP law that the large company wants to change. As long as the other companies do not realize who has motivated these litigations, the large company should succeed in gathering allies for making the case to the legislature. The large company's privateering expenses may be substantially lower than the company's lobbying expenses, while yielding greater results.

Assume for example that you are an account executive for a specialized advertising, public relations, and lobbying firm. One of the firm's clients LargeCo has been sued many times for patent infringement in recent years. Assume further that it is widely rumored that the company has a research group that takes some of the better ideas produced by small companies and turns them into polished, highly saleable products without payment of licensing royalties. Many of LargeCo's recent settlements have involved lawsuits brought by the remnants of small companies that LargeCo has commercially defeated. LargeCo's general counsel tells you that the company has determined that if the US had a compulsory licensing law written in exactly the same way as Chapter 6 of the new Chinese IP law²⁷¹ that the company's damages from these

²⁶⁵ See, e.g., *MobileMedia Ideas LLC v. HTC Corporation et al.*, 2:2010-cv-00112 (ED Tex 2010).

²⁶⁶ *Id.*

²⁶⁷ See, Assignment History provided by USPTO at <http://assignments.uspto.gov/assignments/?db=pat> (search in "Assignor" field).

²⁶⁸ Tarmo Virki, *Nokia Loses German Patent Case Against ICom*, Reuters, Feb. 11, 2011, <http://www.reuters.com/article/2011/02/18/nokia-germany-idUSLDE71H0GW20110218>.

²⁶⁹ Joff Wild, *The IAM IP personalities of 2010*, IAM Blog, Dec. 23, 2010, <http://www.iam-magazine.com/blog/Detail.aspx?g=3c305628-e292-4253-9659-a8c5e9e3814b> and see, ICom GmbH & Co. KG management, http://www.ipcom-munich.com/management_en.html.

²⁷⁰ Philippa Maister, *German Court Sees First Signs of European Patent Trolls*, IP Law & Business, October 02, 2008 <http://www.law.com/jsp/article.jsp?id=1202424954133&slreturn=1&hbxlogin=1>.

²⁷¹ Patent Law of the People's Republic of China, as amended December 27, 2008, http://www.sipo.gov.cn/sipo_English/laws/lawsregulations/201101/t20110119_566244.html.

lawsuits would be halved, from \$400 million on average down to \$200 million. LargeCo's initial attempts to push a compulsory licensing law for unworked inventions met with strong resistance from groups of companies in two different sectors, as well as from some independent inventor associations. The general counsel wants to develop a plan for creating momentum for adding something akin to Chapter 6 of the Chinese Patent law to the US Patent Law.

One could imagine that LargeCo would be willing to spend several million in privateering expenses to help this effort. By comparison, Intellectual Ventures, excluding contributions made by its principals, has spent nearly \$4 million on lobbyists alone since 2005 in its efforts to bend purposed US patent law changes to its liking, and IV is far from the biggest player in the patent reform effort.²⁷² IV reportedly spent nearly \$800,000 for a single lobbyist alone.²⁷³ Of course, larger technology companies have spent far greater sums on lobbying efforts, although because of their size, it is not always quite so easy to tell how much was spent on what.²⁷⁴ In any event, spending a few million dollars in a privateering effort to underline other lobby efforts would seemingly amount to a fairly small amount of money for many large companies.

Privateering could certainly play a role in a plan to garner support for a change in the law. In this hypothetical, the patents found would be ones whose litigation would raise the same issues that would suggest a compulsory licensing solution along the lines of Chapter 6 of the Chinese Patent Law. So long as the target companies did not understand who sponsored the litigations, then over time they would likely begin to agree with the sponsoring company's point in changing the law. Unlike lobbying expenses which cannot be recouped, the privateering sponsor might also receive some remuneration for his privateering efforts to change the law.

In a similar vein, privateering could be used to build influence generally. An Intellectual Ventures related company called Mission Abstract Data LLC sued some 116 radio stations in March 2011.²⁷⁵ The patents are presently owned by a company called Digimedia Holdings LLC that was formed in Delaware in January 2011 a few weeks before IV sold the patents in suit. The business objectives behind the *Mission Abstract* case have not been made public; however, one could imagine a similarly situated actor using patent litigation as a tool for changing editorial policies and/or gaining influence. The radio stations might possibly find attractive a settlement offer that comprised simply "favorable coverage of topic X for 10 years" where X could be nearly any topic. If one brought enough infringement suits (using perhaps different patents and using different plaintiffs) against enough media outlets, one could ultimately find themselves having an enormous control over the public dispensement of information about a given topic,

²⁷² See, "Intellectual Ventures" at OpenSecrets.org for the years 2005-2010; retrievable at: <http://www.opensecrets.org/lobby/clientsum.php?year=2010&lname=Intellectual+Ventures+LLC&id=>

²⁷³ See, *Pat Choate v. Intellectual Ventures*, (USDC, 2011); complaint 1:11-cv-00528-CKK at 11.

²⁷⁴ See, Arik Hesseldahl, *What Tech Companies Are Spending in Washington*, New Enterprise (Dec. 23, 2010); downloadable from <http://newenterprise.allthingsd.com/20101223/what-tech-companies-are-spending-in-washington/>.

²⁷⁵ *Mission Abstract Data LLC, d/b/a Digimedia v. Beasley Broadcast Group, Inc. et al*, case 1:11-cv-00176-LPS (D. Del. 2011)

and if the settlements were confidential, then even the other media outlets would not necessarily be aware of what had happened in the aggregate.²⁷⁶

3.3.6 Investor Objective: Growing an Existing Investment

Assume that an investment group has diligenced a particular technology sector and decided to invest in two of five of the leading firms in this new area. The investors, with or without the knowledge of the two firms invested in, could privateer against the three firms in which they did not make investments.

The goal of this privateering effort would be to use risk capital to enhance share capital by adding a commercial impediment to the three companies that the investors have eschewed. The patent infringement action brought by the investors would be geared to bring as much management distraction as possible to the three companies, and the ultimate settlement and litigation expense would likely attrite away from the companies funds that could otherwise be employed in further development of competitive products and services. While the investors may recoup the funds expended in the privateering effort in the form of litigation settlements, the investors will also benefit in that the litigation should give aid and comfort to the companies that have received funding from the investors and perhaps signal to other investors which companies were the healthy ones ready to receive further investment.

In this instance, the sponsor and the privateer could be one in the same, although it is more likely that the sponsor will not have the expertise on its own to know how to behave as an aggressive NPE. Of course, a third-party privateer does not need to know the motivations of the sponsors in bringing the litigations. The sponsors could simply appear to the privateers as a group of investors who would like to profit from the growing market in patent enforcement.

The sponsors could take the action with the knowledge and possibly the approval of the companies that have received their investments. In general, however, one would imagine that this form of privateering would be known with certainty by no one beyond a few members of the company's board, who might actually be the sponsors.

3.3.7 Investor Objective: Change in Stock Price

Assume that an investor group wants to make a large investment in an SME that is a public company. The investor group makes arrangements with a privateer to sue the SME for patent infringement. A company's stock price can drop by more than 10% in the immediate aftermath

²⁷⁶ This hypothetical might sound a bit farfetched, but patents have almost become an odd currency, like a Bitcoin minted by the USPTO, and there are seemingly few limitations on a well-crafted plan to employ IPRs creatively. After all, the Bureau of Alcohol Tobacco and Firearms used trademark infringement as means for impeding the Mongols motorcycle gang. See, e.g., <http://en.wikipedia.org/wiki/Bitcoin>, and see, Andrew Orłowski, *Feds Seize Biker Gang's Trademark*, the Register, Oct. 22, 2008, http://www.theregister.co.uk/2008/10/22/doj_seizes_biker_trademark/.

of adverse patent litigation news.²⁷⁷ In this particular instance, the investors will probably want to make sure that the lawsuit receives a fair amount of publicity.

After the lawsuit is launched, and the stock price drops, then the investor group buys up the discounted shares. The investor group will know that the litigation constitutes little more than a financial risk to the company rather than a business risk, and the investor group may also know that the litigation constitutes no more of a threat to the company's product offering than it does to the product offering of any other company in the same business sector. The target SME will tend to want to settle the lawsuit quickly so that its competitive situation will return to baseline values, and the investors will concur with settlement once they have bought shares.

Assume that the investment amount is \$30 million. A 10% reduction in share price would amount to a \$3 million discount. If arrangements were made with the privateer so that all the investors had to do was acquire the patent, then using the Ocean Tomo figures, this privateering operation could be completed for a cash outlay as low as \$250,000. So, the non-annualized return on investment would be twelvefold over the costs for outfitting the privateer. If the privateering arrangement was structured such that the investors got their patent purchase costs back from the litigation proceeds, then the privateering operation would effectively cost the investors nothing since the litigation settlement expenses would be spread among all the SME's investors.

The investors would likely structure their relationship with the privateer such that the privateer had no knowledge of the investor's pending investment in the company. The investors could simply make arrangements with the privateer to sue the company on a given day that would give the investors sufficient time to make their arrangements for acquiring a certain number of the SME's shares for no more than the going market rate. It will be practically difficult for most targets to find the relevant trading data that could reveal a privateering sponsor, although it is possible for the SEC in its review of trading data to consider sanctions against the investors. The investors would likely need to construct their privateering operation fairly carefully to avoid accusations of and liability for market manipulation.²⁷⁸

3.3.8 Investor Objective: Short Selling

²⁷⁷ Todd R. Weiss, *Vonage CEO Resigns; Company Moves To Cut Costs*, Computerworld, April 12, 2007, http://www.computerworld.com/s/article/9016340/Vonage_CEO_resigns_Company_moves_to_cut_costs?taxonomyId=16&taxonomyName=networking_and_internet (reporting that Vonage's stock dropped 24% in light of a patent infringement litigation.) and Eric Mitchell, *Shaky Status of Patent Lawsuit Rocks Gemstar Stock*, Bloodhorse, <http://www.bloodhorse.com/horse-racing/articles/9298/shaky-status-of-patent-lawsuit-rocks-gemstar-stock#ixzz1KfEa9IBJ> (report that Gemstar's stock dropped 15% in light of patent misuse claims); see also, Jean O. Lanjouw and Mark Schankerman, *Enforcing Intellectual Property Rights*, Conference on New Research on the Operation of the Patent System, U.S. National Academy of Sciences in Washington (Oct. 2001); <http://sticerd.lse.ac.uk/dps/ei/ei30.pdf>

²⁷⁸ See, "Article 2".

An investor or investment group could routinely use privateers as a means for temporarily lowering the share price of public SMEs as a way of profiting from a decline in share price, *e.g.*, making profits via short selling the stock.²⁷⁹ The investor first conducts research to determine the characteristics of public companies that are most vulnerable to at least a temporary decline in share price due to announcement of a patent infringement litigation. For any given public company this would also likely entail determining what kind of patent would have the maximum impact on the target company's share price. At some time in the past, any patent might have worked for a small company, but given the proliferation of NPE patent lawsuits in recent years, a patent litigation against an SME might need to resemble another *NTP v. RIM* case²⁸⁰ in order to have maximum effect. In short, the case would need to appear threatening to the target's competitive advantage, *e.g.*, a business risk rather than a mere financial risk.

Of course, the investor can also make money via the privateering operation itself. So, the investor could make money from both the short selling of the target's stock and from the settlement of the patent litigation. The investor would not necessarily need a third party privateer and could serve both roles. However, the investor would probably be less vulnerable to potential liabilities if it could argue that the privateer was at arm's length from the investor's actions. The investor would need to carefully structure its actions to avoid potential liability for market manipulation.

3.3.9 Investor Objective: Change in Valuation

It is well known that companies are often sued for patent infringement shortly before their initial public offering (IPO),²⁸¹ and it is equally known that the companies will do almost anything to settle such lawsuits quickly.²⁸² Similar fears have led to companies being concerned about infringement litigations during the diligence rounds associated with large investments. The privateering twist in this scenario is for the prospective investor itself to bring the litigation as a means for lowering the investment target's valuation price. This form of privateering would likely call for the highest levels of stealth on the part of the privateer and the sponsor, as public disclosure could be highly damaging for the sponsor.

The prospective investor could begin making privateering arrangements well prior to entering formal diligence of the investment target. Even at the pre-diligence stage, the investor

²⁷⁹ Lang Asset Management, *Understanding Short Selling - A Primer*, 2000; <http://langasset.com/ishort.htm> .

²⁸⁰ See, *e.g.*, *NTP, Inc. v. Research in Motion, Ltd.*, 418 F.3d 1282 (Fed. Cir. 2005)(The NTP case settled in 2006 for \$612.5 million just prior to the court awarding the plaintiff's an injunction against further infringement.).

²⁸¹ See, Tomio Geron, *IPO-Ready OpenTable Hit With Suspiciously Timed Lawsuit*, *Venture Capital Dispatch*, Wall Street Journal, May 19, 2009, <http://blogs.wsj.com/venturecapital/2009/05/19/ipo-ready-opentable-hit-with-suspiciously-timed-lawsuit/>; Chris Gaither, *Google Settles Yahoo Patent Suit in Anticipation of IPO*, *Los Angeles Times*, Aug. 10, 2004, <http://articles.latimes.com/2004/aug/10/business/fi-google10>; and Carol Emert, *PayPal IPO Party Spoiled By Rival's Patent Lawsuit*, *San Francisco Chronicle*, Feb. 7, 2002, http://articles.sfgate.com/2002-02-07/business/17533265_1_palo-alto-s-paypal-certco-trading-today.

²⁸² *Id.*

would have likely conducted a detailed study of the investment target, knowledge which would be helpful in arranging a privateering operation against the target. It would be helpful, of course, for the investor group to use information gathered in diligence to better target the IPR launched at the target company. Providing diligence information to the privateer might run afoul of non-disclosure agreements in place between the prospective investor and the target and could possibly also give rise to various civil and equitable causes of action. Fortunately, the sponsor will not typically need this additional information in order to privateer. The more likely scenario will be for the investment group to take its pre-diligence of the target and use this to find vulnerabilities that can be exploited by a privateer. Thus, no confidential information from the company needs to be used, and the privateering effort can be engaged prior to any agreements being signed between the investor and the target. Timing issues likely weigh as heavily as legal ones, as it will likely take the investor sponsor a while to complete arrangements with a privateer.

At some point during the diligence, the privateer sues the target. The investment group then expresses its “serious concern” about the infringement litigation and “grave reservations” about going forward with the investment to the target’s management and threatens to withdraw from making its investment. After some negotiations, the investment group agrees to proceed with the investment provided that the target reduces the investment share price. This technique works even better when the investment group will provide the new management to the target company.

Assume that an investment group diligences a target company for a prospective \$100 million investment in a company with total share capital of \$300 million. If the investment proceeds, the investment group will own 25% of the shares in the company, which in this example is assumed sufficient to allow the investor to pick the management team and possibly much of the board. The investment group’s pre-diligence of the target has led it to identify a set of patents that could be used for maximum effect against the target. The investment group sets up an SPE with a privateer who then sues the target for infringement. In setting up the SPE, the investment group makes sure to hold a majority position on the SPE’s board – or the board of the company that owns the company that holds the IPR used in the privateering operation.

After the infringement litigation is filed, the investment group “officially” reviews the patent and expresses its concern about the investment to the target. The investment group could use different legal counsel to review the patent than it used in any phase of the privateering arrangement, so the counsel’s written opinion and any appearances before the target’s management team would have a genuine and sincere sense of concern. The sponsor could even locate outside counsel for the opinion who were known to be extremely risk averse. After some negotiations with the target’s management, the investment group then obtains a reduction in the amount of its purchase price (*e.g.*, 10% or \$10 million in this example).

The investment group's acquisition of the target's shares will proceed at a much faster pace than the patent litigation. The investment group completes the acquisition of the target and places its new management team into the company. The investment group instructs the new management team (with or without knowledge about the privateer's purpose) to seek settlement of the litigation with the privateer. Because the SPE is controlled by the investment group, the two parties will reach an appropriate settlement figure, an amount which essentially needs to accomplish no more than provide the privateer's fee. Of course, a particularly greedy investment group could structure a large settlement, knowing that 75% of the settlement amount will essentially be paid by the other investors. Also, a greedy investment group could use the settlement as a way for recouping some of its investment capital.

If the investment target had a large amount of cash on hand, then the investor group could even proceed with the investment without obtaining any more than a small reduction in share price²⁸³ and use the settlement negotiations with the privateer (which is essentially a negotiation with itself) as a vehicle for obtaining cash for the investment in the target. The sponsor could even make sure that the management team's settlement with the privateer was especially advantageous for the privateer. Of course, raiding the company for cash might well cross the line in terms of what the investment group can do without creating significant legal liability for itself; however, a series of slightly different legal entities of which it is only an investor might provide sufficient formalities to avoid liability.²⁸⁴

The sponsor's greatest risk in this scenario is for public disclosure of its activities. While the sponsor's actions might not be actionable under civil causes of action,²⁸⁵ the sponsor's future business endeavors with new third parties could be extremely impaired if companies came to believe that involvement with the sponsor was simply an invitation to a lawsuit whose goal was to lower company valuation, *e.g.*, the phrase "investment target" would have a new meaning. For this reason, the sponsor will probably not want to use this technique too often, and the sponsor will probably want sufficient layers in place (*e.g.*, multiple corporate identities) so that it will always have plausible deniability in the event of public disclosure.

3.3.10 Investor Objective: Recouping Research Costs

A wholly different approach by an investment group would be to use privateering as a way for generally recouping a portion of its own research costs. Large investment houses spend enormous amounts of time and effort researching companies while only investing in a few of them. IP privateering could be used as a tool for recouping some of an investor's sunk costs in researching investment opportunities.

²⁸³ Or possibly no reduction at all.

²⁸⁴ *See, Article 2.*

²⁸⁵ Although equitable remedies might possibly be available – if the privateering is discovered.

In short, whenever the investment group researches a prospective investment, the group will learn information about the investment target even if no confidential information is received. If the investment proceeds, then the group does not privateer – but for those investments that do not proceed, then the investment group recoups its expenses by making arrangements for privateering operations against targets that would be particularly vulnerable.²⁸⁶ This list of targets could include all companies reviewed by the investment group and not necessarily companies that it has diligenced. Of course, for this scenario to work without the investment group incurring liabilities, it needs to be very careful about how it handles any confidential information received from potential investments.

3.4 Privateering Infrastructure

Although IP privateering has been around for years, according to some industry IP managers, no agency presently seems to offer privateering services as such. One suspects that such services may likely conform to the regular service offerings of existing IP intermediaries, however. Privateering could be engaged as easily as contacting a licensing organization and telling them that the company would like to invest in the litigation of a patent having X, Y and Z characteristics. The sponsor could even provide a list of targets for such a patent. The investment could take the form of a general investment in the licensing organization itself rather than an investment in a specific privateering operation. This would give the sponsor more protection against ultimate discovery than an investment in an organization focused on exploiting one particular patent only, and an investment in a larger organization would provide further insulation against any potential legal liability as well. Once the investment had been made, then the privateer could begin searching for an IPR that matched the sponsor’s particular needs, and once the patent was found, either purchase it and/or finance pertinent litigations. Of course, the facilitator’s reputation would be built on its discretion.

Acacia Research, Inc., a public company, includes among its investors mainstream mutual funds like Fidelity, Oppenheimer Funds, and the Vanguard Group.²⁸⁷ Acacia has recently adjusted its business model to include a turnkey licensing operation for businesses holding IP rights, although Acacia does not explicitly offer privateering services. Acacia’s SEC filings mention that in some instances “costs paid by Acacia’s operating subsidiaries to acquire patents are recoverable from future net revenues.”²⁸⁸ Essentially free IP rights could theoretically allow some of Acacia’s IP assertions to be privateered.

²⁸⁶ As an alternative, the venture capital firm could package its analysis and sell the analysis directly to an NPE and retain no further interest.

²⁸⁷ See, *Shareholders Major ACTG Acacia Research Corporation Shareholders*, Morningstar, <http://investors.morningstar.com/ownership/shareholdersmajor.html?t=ACTG®ion=USA&culture=en-US+%28%29> (click tab for “Institutions”).

²⁸⁸ Acacia 2010 Form 10K Annual Report to the Securities and Exchange Commission at F-8 (report available at <http://www.sec.gov/Archives/edgar/data/934549/000093454911000005/actg2010123110k.htm>).

Agent/brokers like iPotential and ThinkFire help patent sellers find patent buyers.²⁸⁹ General Patent Corporation International provides technical and financial support services to NPEs and helps them evaluate the viability of their patent cases.²⁹⁰ Investment companies like Rembrandt IP and Altitude Capital provide the funds to acquire, license, and litigate patents.²⁹¹ In addition to contingent fee law firms like Niro Scavone, many conventional law firms have accepted NPEs as clients.²⁹²

3.5 The Possible Oversupply of Marketable Patents That Simplifies Privateering

Some commentators have argued that an “IP bubble” may ultimately form in the IP market.²⁹³ Their arguments are often based on the assumption that accounting requirements for patent valuation may lead to an escalating overvaluation of IPRs, particularly patents, as a component of the valuation of public companies.²⁹⁴ While this is quite possibly true, one could also question whether there exists a patent oversupply in terms of the ever-escalating stockpile of issued patents. There are more active patents now than at any time in history and the number of active patents grows weekly.²⁹⁵ The patent oversupply problem, to the extent that it exists, could act as more than a hindrance to innovation,²⁹⁶ it could possibly also act as a mechanism for allowing companies to compete against each other in ways that are less than productive for the economy as a whole.²⁹⁷

The patent oversupply, if it exists, has likely occurred because of the coincidence of several factors. One part of the oversupply has come from the accelerating IP competition discussed earlier that has led to an increase in patent filings. But the legal standards for patentability are

²⁸⁹ Millien and Laurie, *supra* note 72 at 55.

²⁹⁰ Fawcett, *supra* note 82 at 10.

²⁹¹ See Nathan Vardi, *Patent Payday*, Forbes.com (Feb. 12, 2008), http://www.forbes.com/2008/02/11/patents-legal-rembrandt-biz-cz_nv_0212patent.html and Mike Masnick, *Patent Holder Sues McAfee, Gets \$25 Million... But May End Up Losing \$5 Million Due to Everyone It Has To Pay Off*, Techdirt (Nov. 4, 2009), <http://www.techdirt.com/blog.php?company=altitude+capital+partners&edition=:>.

²⁹² Fawcett, *supra* note 82 at 9.

²⁹³ See, e.g., Ove Granstrand, plenary session remarks at CIP Forum 2009, Gothenburg, Sweden, Sept. 7, 2009. See also, Nathan Vardi, *Trolling for Suckers*, Aug. 8, 2011, <http://www.forbes.com/forbes/2011/0808/features-nathan-myhrvold-intellectual-ventures-trolling-suckers.html>.

²⁹⁴ *Id.*

²⁹⁵ Patents remain in force 20 years from their filing. This means that patent applications filed roughly prior to April 1991, if issued, could still be in force today. The number of US utility patents having filing dates after April 1, 1991 amounts to some 2,742,389 patents. In its 221-year history, the USPTO has issued some 7,934,266 patents, which means that the USPTO has issued 34.6% of all the patents that is has ever issued in the past 20 years. The interested reader may repeat this calculation by visiting the USPTO patent database at <http://patft.uspto.gov/netahtml/PTO/search-adv.htm> and entering the search term “APD/4/1/1991->4/26/2011 and APT/1”. Patentees must periodically pay fees in order to keep patents in force. In 2008, the USPTO reported that there were 1,872,872 active US patents, giving the US the greatest number of active patents in the world. Japan was second with 1,270,367 active patents, and Korea was third with 624,419 active patents. See, World Intellectual Property Indicators 2010, published by the World Intellectual Property Organization, 66-67.

²⁹⁶ See, Michael A. Heller and Rebecca S. Eisenberg, *Can Patents Deter Innovation? The Anticommons in Biomedical Research*, Science 1 May 1998, Vol. 280 no. 5364 pp. 698-701.

²⁹⁷ A more robust analysis of this question has not been attempted in this paper.

fixed.²⁹⁸ Thus, increased application filings would not necessarily contribute to a corresponding increase in patent grants. Many applications could simply be found to not contain sufficient improvements over the prior art to merit a patent and be abandoned. But this is not what has happened.

One factor behind the patent oversupply to the extent that it exists comes from patent applicant behavior. Another factor of the patent oversupply comes from the bureaucratic response to increased patent filings during the pro-patent era. The bureaucratic factors impacting the oversupply possibly include inadequate funding to handle the growing number of application filings, a tradition of maintaining a customer-friendly approach, difficulties in managing huge data collections, and possibly an effective lowering of the standards for obviousness.

Since 1990 more than \$800 million in user fees has been diverted away from the USPTO and applied to general revenue even though the agency is funded entirely by user fees.²⁹⁹ Recent budget cuts have reduced the agency's budget by a further 10%.³⁰⁰ For an agency whose fees have been calculated to provide it with sufficient funds to complete its mission only to have a heavy fraction of those fees diverted away likely ensures that the agency cannot complete its mission in the intended manner. This fee diversion began at precisely the same time that patent application filings accelerated.

As another possible contributor to the patent oversupply, patent offices tend to offer a "customer-friendly" approach.³⁰¹ The patent office has possibly long been effectively captured³⁰² by its customer base, and the USPTO is presently led by the former head of its largest customer.³⁰³ While patent offices need not be hostile to patent applicants, a major function of the office is to protect the public from the issuance of unwarranted and/or overly broad monopoly rights; hence the office's true customer is the general public. One could speculate that the patent office's procedures may generally lean more towards granting patent applications than towards disallowing them. A statistical analysis of possible patent office biases has likely become

²⁹⁸ See, e.g., the US Patent Act, 35 USC at Sections 102-103. These conditions for patentability have been essentially the same for more than 200 years.

²⁹⁹ *Background and Status on USPTO Funding, Intellectual Property Owners Association*, <http://www.ipo.org/AM/Template.cfm?Section=Home&Template=/CM/ContentDisplay.cfm&ContentID=3360>.

³⁰⁰ Dennis Crouch, *Kappos And His \$100 Million (10%) Budget Cut*, PatentlyO Blog, Apr 21, 2011, <http://www.patentlyo.com/patent/2011/04/kappos-and-his-100-million-10-budget-cut.html>.

³⁰¹ See, e.g., Doug Weinstein, *The Fast Lane: How to Get Your Patent Quickly Through the U.S.P.T.O.*, DigiTimes, November 2010 (describing director David Kappos as having brought a customer-friendly approach to the USPTO), <http://www.finnegan.com/resources/articles/articlesdetail.aspx?news=d3d0a3dc-977b-41f0-8a51-38d183fdb03>, and see, James Rogan, *Message from the Under Secretary of Commerce for Intellectual Property and Director of the U.S. Patent and Trademark Office*, USPTO, Dec. 1, 2003 ("Our customers deserve - and the reality of trade and investment today demands - that we provide the highest quality services in the shortest possible timeframe."), http://www.uspto.gov/about/stratplan/ar/2003/02_message_director.jsp.

³⁰² See, Wilson, *supra* note 180.

³⁰³ Weinstein, *supra* note 474.

confounded in recent years by the fee diversion trend noted above because increasing numbers of patent applicants have apparently decided to abandon unexamined applications.³⁰⁴

Patent offices have also generally not employed highly sophisticated information management technologies that might help them better organize their huge technical data collections and better compare granted patents, pending applications, and prior art data collections.³⁰⁵ The patent office also does not seemingly compare granted patents in terms of their technical subjects – in the sense that one might view with some alarm the issuance of thousands upon thousands of patents that all pertain to certain specific technologies. Of course, manufacturers can make their products in a variety of ways such that not every patent in a given technology area needs to be used in every product but analyzing the patent data to find which patents are needed has become an extraordinarily expensive task and one that almost no one does.³⁰⁶

Despite the rapidly accelerating growth in science and technology, the major patent offices' managers have not routinely and overtly re-evaluated who constitutes the “average” artisan across given fields – even though the viewpoint of the average artisan serves as the touchstone for patentability, the “average man” of the patent world.³⁰⁷ For example, if a patent office effectively considers the “average” microbiologist to be the average microbiologist of 1985 then many pending applications will issue as patents – or at least issue with broader claims – than they would if the office re-thought what constituted an average microbiologist in 2011 because of differences in obviousness or inventive step. This problem likely exacerbates “close” cases – those where obviousness/inventive step is an issue. In short, the standards for obviousness/inventive step may have become too easy for applicants in some technology classes to hurdle even though the wording of the laws and regulations has not changed.

³⁰⁴ See, Patrick Anderson, *Rising Patent Application Abandonments*, GameTime IP Blog, April 1, 2011, <http://gametimeip.com/2011/04/01/rising-patent-application-abandonments/> (Patent application abandonment rates have spiked during the past two years with a probable cause being the increasing delays in application reviews due to funding cuts.).

³⁰⁵ No patent office seems to employ techniques as simple as ontologies for categorizing the applications that they review – even for prior art searching purposes – let alone for analyzing the rights that they have granted. See, Mark Giereth et al, *Application of Semantic Technologies for Representing Patent Metadata*, Proceedings Of The First International Workshop On Applications Of Semantic Technologies, 2006 and see, Siddharth Taduri et al., *An Ontology to Integrate Multiple Information Domains in the Patent System*, 2011 IEEE International Symposium on Technology and Society (ISTAS), May 23-25, 2011, Accepted.

³⁰⁶ See, *Tex. Instruments*, *supra* note 65 at 901.

³⁰⁷ Patent offices have sometimes employed a self-referential approach whereby a prior art document alone provides the standard for what an average artisan would know without explicit consideration of what average artisans actually know. See, *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 421 (2007) (“A person of ordinary skill is also a person of ordinary creativity, not an automaton”) and compare with, *Ex Parte Satoshi Hiyamizu and Toshio Fujii*, Appeal No. 650-06, February 8, 1988 (After rejecting the examiner’s construction of the average artisan in the field, the board concluded “It is to be noted, however, that citing references which merely indicate that isolated elements and/or features recited in the claims are known is not a sufficient basis for concluding that the combination of claimed elements would have been obvious. That is to say, there should be something in the prior art or a convincing line of reasoning in the answer suggesting the desirability of combining the references in such a manner as to arrive at the claimed invention. Note *In re Deminski*, 796 F.2d 436, 230 USPQ 313 (Fed.Cir.1986).”)

The pro-patent era has left many operating companies with inventories of unused patents, unused in the sense that they are in no way being practiced or otherwise exploited by their owner.³⁰⁸ A BTG International study found that up to two-thirds of all U.S. companies have patent unused patent assets.³⁰⁹ According to another estimate, up to 20 percent of many companies' patent portfolios could be sold with no negative impact on the respective company's IP position."³¹⁰ Thus, there exist large numbers of unused patents that have the potential to be applied to litigation or aggressive licensing.³¹¹

The growing patent marketplace provides a means for companies to dispose of surplus patents. Many companies feel a "growing temptation to release patents from portfolios to those who can make 'better' use of them," without fear of public reprisal, counter-assertions, or repeated interactions with competitor targets.³¹² As discussed above, a number of corporate originated patents have been sold to entities that have subsequently asserted them against other practicing companies.³¹³ The original operating company owner often wants some form of plausible deniability regarding control over the new owning entity so as to avoid the potential wrath from the prospective licensees.

So, where does this leave privateering? What this means is that it is relatively easy for a would-be privateering sponsor to find a patent that satisfies particular characteristics. Having found a suitable set of patents, one can then assess how easy it will be to apply each of the patents in this set for a given privateering operation – and sponsors may undertake and complete all of these steps without ever having to contact the present owner of the candidate patents.

Chapter 4

Discussion and Implications for Policy, Management, & Research

³⁰⁸ Julie L. Davis & Suzanne S. Harrison, *Edison in the Boardroom: How Leading Companies Realize Value from Their Intellectual Assets* 145 (2001).

³⁰⁹ Phelps & Kline, *supra* note 199 at 138.

³¹⁰ Dan McCurdy, *Out of Alignment-Getting IP and Business Strategies Back in Sync*, in *From Assets to Profits: Competing for IP Value and Return* at 15 (Bruce Berman ed., 2009).

³¹¹ Chien, *supra* note 41 at 338.

³¹² See Kahin, *supra* note 118 at 11.

³¹³ Tom Ewing, *A Study of The Intellectual Ventures Portfolio in the United States: Patents & Applications*, 2nd Edition, Version 2.3 (March 2011), at Table 3, Appendix 1 (Some 950 IPR transactions by Intellectual Ventures have cumulatively amounted to 11,024 US patents/applications. Of these 950 transactions, some 169 transactions involve large companies (e.g., ABB, AT&T, France Telecom, Fujitsu, General Dynamics, LG Electronics, Microsoft, Mitsubishi, Nokia, and Philips) for a total of roughly 4,769 patents and 716 applications, or slightly less than half of IV's total IPR acquisitions. Many of these patents were likely filed originally for defensive purposes but can now be used offensively by IV. (Report downloadable from <http://www.avancept.com/Publications.html>) and in a similar manner about 50 patents of Conexant, a publicly traded semiconductor company that makes integrated circuits for various electronic devices, (About Conexant, Conexant, <http://www.conexant.com/company/about.html>.) have ended up in the hands of a three-person NPE called WiAV, LLC that has sued Motorola, Kyocera, RIM, and Apple, among others, see also *WiAV Solutions LLC v. Motorola, Inc.*, No. 3:09cv447, 2009 U.S. Dist. LEXIS 96994, at *4 (E.D. Va. Oct. 20, 2009).

Is privateering good, bad or just another competitive tool? The answer may be complicated because some forms of privateering impact, potentially, a large portion of the innovation system and in turn may raise questions about the overall functioning of the innovation system itself. The interplay between privateering and the innovation system will be discussed. While a few conclusions can probably be drawn about privateering, an overall assessment of its employment by market actors possibly depends on a more comprehensive analysis of the interplay of law, economics, and innovation of which privateering comprises merely a single factor in a complex system. IP privateering and other factors possibly suggest consideration of a more explicitly constructed framework for the US innovation system.

4.1 IP Privateering as Anticompetitive and Market Manipulation Behavior

Privateering, *per se*, does not appear to give rise to civil or equitable liability under current law. This does not mean that a privateering target cannot bring a counterclaim against a sponsor once the sponsor's presence is revealed; it means instead that the target will need to identify and prove some specific tort that the sponsor has committed by privateering, and the available claims will vary depending on the circumstances of particular cases. In most instances, the target will first need to prove that the privateer's case was seriously deficient before moving on to address the sponsor's potential liability.

Anticompetitive behavior and market manipulation comprise two privateering scenarios that should always give rise to sponsor liability where they can be shown. These are the two forms of IP privateering whose potential liability is independent of the strength of the privateer's case against the target.³¹⁴ In terms of the sponsor's liability under these two causes of action, it matters little whether the privateer's case against the target is frivolous or has exceptional merit.

Anticompetitive IP privateering should invoke a blanket prohibition. Individual cases will likely contain a number of variables with both litigants presenting non-trivial arguments that a given activity was/was not anticompetitive, as is the nature of the legal process. However, in those instances where a sponsor would not have been privileged to use his own IPRs against the target on anticompetitive grounds, then the sponsor should not be allowed to privateer against the target using third-party IPRs either. IP privateering adds to the IPRs at the disposal of the sponsor, thus making the sponsor even more anticompetitive than if its own IPRs had been used.

Moving anticompetitive privateering onto a list of prohibited activities does not solve a target's evidentiary difficulties. The ultimate beneficiary of a privateering operation may remain well hidden and shielded. Striking an appropriate discovery balance in litigation may prove difficult. Most patent litigations, even NPE patent litigations, will probably not involve a sponsor, let alone a sponsor who is engaging in actionable antitrust/anticompetitive activities.

³¹⁴ See, **Article 2**.

One possible solution may lie in sensitizing judges to the possibility of privateering in IPR cases which may render them more sympathetic to granting broader discovery motions in cases where they might rule otherwise. Another possible solution may come from the regulator, in particular, the Antitrust Division of the US Dept. of Justice. The *in terrorem* effect of a possible DOJ investigation may provide sufficient motivation to deter companies from privateering in instances that they themselves know are anticompetitive but pursue nevertheless under an assumption that their activities will not be exposed and sanctioned.³¹⁵

Market manipulation similarly represents another form of privateering that should give rise to a blanket prohibition. Again, while individual cases may vary, no actor should be able to engage in a behavior that would be sanctioned if performed openly. A privateering effort should not avoid legal liability simply on the basis of the difficulty of its discovery, *e.g.*, if discovered, then sanctioned; if not discovered, then no sanction.

The target in a market manipulation case likely faces a daunting evidentiary task. In the anticompetitive scenario, when the target finally discovers the presence of “Company X,” then most targets will instantly understand what has happened because of the target’s *a priori* knowledge of Company X. But in the market manipulation case, the sponsor may be a party that is completely unknown to the target – and the target will likely not have access to trading data so as to know who traded in the target’s stock at a point near the filing of the litigation. Thus, greater discovery for the target may provide only a limited countermeasure for curtailing market manipulative privateering.

As with anticompetitive privateering, a possible solution may involve the regulator, in this instance, the Securities and Exchange Commission. The SEC has access to all the relevant trading data for public companies, so the SEC should be in a position to match stock transactions with key litigation dates and make appropriate investigations.³¹⁶ Again, the *in terrorem* effect of an investigation, or potential investigation, may provide sufficient motivation to deter investors from using IP privateering as a means for manipulating markets.

³¹⁵ The DOJ antitrust division has experience dealing with patent matters. *See, e.g.*, Grant Gross, *DOJ Limits Microsoft’s Purchase Of Novell Patents*, PCWorld, April 21, 2011, http://www.pcworld.idg.com.au/article/383941/doj_limits_microsoft_purchase_novell_patents/, and *see*, Deborah A. Garza, *The Increasing Role of Antitrust Principles in Defining Patent Rights*, remarks before the Intellectual Property Owners Association, Antitrust and Competition Law, Standards Setting and Pharmaceutical Issues Committees Conference, June 9, 2008, <http://www.justice.gov/atr/public/speeches/235975.htm>.

³¹⁶ The SEC is already aware of trade irregularities involving patents. *See, SEC v. Malcolm B. Wittenberg*, C 01 1477 MMC, (ND Cal 2001), <http://www.sec.gov/litigation/litreleases/lr16970.htm>, and *Insider Trading Conviction Leads To Interim Suspension*, California Bar Journal, Feb. 2002, <http://archive.calbar.ca.gov/calbar/2cbj/02feb/page25-1.htm>, (private practice patent attorney pled guilty to insider trading based on trades made using privileged knowledge of a pending merger), and *see, e.g., SEC v. Andrew S. Marks*, 02 CV 12325 (JLT) (D. Mass., 2004)(SEC complaint filed against corporate patent attorney for insider trading led to criminal conviction and sanctions), <http://www.sec.gov/litigation/litreleases/lr18956.htm> and <http://www.sec.gov/litigation/complaints/comp17871.htm>.

4.2 Prohibitions Against IP Privateering *Per Se*

Should IP privateering *per se* be prohibited? To be clear, should IP privateering be prohibited or impeded even in those cases where the sponsor is not manipulating markets or acting in an anticompetitive manner and the privateer's case against the target has merit? The possible avenues for a legal prohibition seem reasonably clear; the economic desirability of a prohibition is somewhat less clear and somewhat depends on how a society constructs its innovation system.

4.2.1 Avenues for Enjoining IP Privateering

A US judge cannot dismiss a case simply because he finds the plaintiff or the plaintiff's case distasteful or otherwise harmful to society.³¹⁷ The judge must have well-reasoned grounds for dismissing a case, and those grounds must be sufficiently compelling to survive a *de novo* review by an appeals court. There are a few legal causes of action that over time might eventually develop into a body of law sufficiently robust that they could be used as a tool for erecting a *per se* prohibition on IP privateering.

IP privateering only works when one can find an IP right that is sufficiently valid and sufficiently infringed to survive in litigation long enough for settlement to become plausible with no sanctions against the plaintiff. In short, these are essentially the same necessary conditions for just about any IP rights litigation. It would be difficult to set out coherent boundary conditions for when and under what circumstances infringement becomes acceptable and conversely at what point does stopping infringement become unacceptable.³¹⁸ The boundary conditions would have to be articulated very carefully or otherwise they might provide unintended tools for actors in cases that had nothing to do with privateering, further complicating an already complicated process.

IP privateering concerns the motive for bringing an IPR litigation. Patent law has generally been free of considerations about motive on both the plaintiff and defendant sides of litigation with some exceptions.³¹⁹ The case law could possibly expand over time to include the plaintiff's

³¹⁷ *ABA Model Code Of Judicial Conduct*, Canon 2, A Judge Shall Perform The Duties Of Judicial Office Impartially, Competently, and Diligently, Rule 2.2 Impartiality and Fairness. A judge shall uphold and apply the law, and shall perform all duties of judicial office fairly and impartially. (ABA Feb. 2007), http://www.americanbar.org/content/dam/aba/migrated/judiciaethics/ABA_MCJC_approved.authcheckdam.pdf

³¹⁸ This daunting task will not be attempted here, although as noted above, the actors in the present system already tolerate a degree of infringement. See, Mark A. Lemley, *Ignoring Patents*, 2008 Mich. St. L. Rev. 19, 21 (“[B]oth researchers and companies in component industries simply ignore patents. Virtually everyone does it. They do it at all stages of endeavor.”).

³¹⁹ Motive considerations have thus far been fairly rare in patent law but there are exceptions. For example, on the plaintiff side, inequitable conduct requires the showing of an affirmative misrepresentation of a material fact by the plaintiff during patent prosecution. See, e.g., *Therasense, Inc. v. Becton, Dickinson & Co.*, ___ F.3d ___ (Fed. Cir. 2011) (en banc), and see, *Molins Plc v. Textron*, 48 F.3d 1172, 1178 (1995). On the defendant side, contributory infringement requires a showing of the defendant's motive. See, e.g., *DSU Med. Corp. v. JMS Co.*, 471 F.3d 1293, 1306 (Fed. Cir. 2006) (“Inducement requires evidence of culpable conduct, directed to encouraging another's

motives for bringing an infringement litigation into considerations for finding infringement and/or in determining damages. However, the rationale might seem somewhat peculiar, if not absurd, as it would essentially allow a party to infringe a patent when the patent's owner or financial backer did not have a proper state of mind in bringing the litigation. The additional discovery into the plaintiff's motivations and state of mind might prove incredibly burdensome for the majority of infringement cases where privateering will not be an issue. In short, including considerations about the plaintiff's motives for bringing an otherwise legitimate infringement action appears to be a solution that would be considerably more harmful than the problem it purportedly cures. Thus, a focus on the plaintiff's motive seems unlikely to develop into a separate body of case law that ultimately proscribes the use of privateering.

IP privateering would be a more difficult strategy to employ if the patent oversupply problem was also not present. One could suppose that if there were fewer patents, then the remaining patents might have sufficient economic importance and value in their own right that their acquisition cost might outweigh the typical benefits provided by privateering.³²⁰ It has not previously been the function of the courts to regulate the supply of patents, generally, and/or those available in the marketplace. Thus, the legal system on its own initiative is unlikely to regulate the patent supply.

As a solution to privateering, one could argue for a looser standard for granting Rule 11 sanctions in patent cases, but there is no reason why the litigation of patent rights should be less robust than the litigation of other rights. Rule 11 applies to all civil causes of action, and most patent cases will have little to do with privateering. One could presumably amend Rule 11 for patent cases to specifically include a harassment element in IP cases. The parameters could basically run along similar lines to anti-SLAPP legislation.³²¹ Such an approach, however, could easily cause more problems than it solves.

Case law progressions in two areas might eventually lead to a legal prohibition against IP privateering. Those cases in which a privateer was sanctioned for bringing a frivolous case against the target and where the target brought a subsequent counterclaim against the sponsor might eventually develop into a sizeable body of cases that could ultimately provide a platform for curtailing privateering as such. Similarly, the antitrust doctrine articulated under *Kobe*³²² might possibly be extended over time to include a more blanket prohibition against privateering if *Kobe* came to be seen as more than a concerted effort to monopolize a technology sector through patent purchases but as an attempt by an operating company to behave anti-

infringement, not merely that the inducer had knowledge of the direct infringer's activities."), *see also*, *Wordtech Sys. v. Integrated Networks Solutions, Inc.*, 2010 U.S. App. LEXIS 12260, 17 (Fed. Cir. 2010) (Corporate officers who knowingly aid and abet in their corporation's infringement may be held liable for inducement of infringement under 35 U.S.C. 271(b)).

³²⁰ This consideration may also apply to aggressive NPE litigation as well.

³²¹ SLAPP played a role in countering accusations of tortious interference with prospective advantage in the *iLeverage* case discussed above; *see*, *iLeverage*, *supra* note 453.

³²² *See*, *Kobe*, *supra* note 402.

competitively in the market using patents, a usage that could come to be seen as including privateering. However, even if courts were so motivated to develop the case law in either of these areas, the progression would probably require many years before a court would render a finding against privateering *per se*.

The present legal system can already assist a privateering target who makes a successful Rule 11 challenge against a privateer. With knowledge about the possibility of privateering, this same target should be able to direct additional discovery that could lead to uncovering of a sponsor – the target just needs to know to ask the appropriate questions and judges need to be sensitive to such possibilities. How sensitive should judges be to privateering matters? One could say that so long as the plaintiff holds all the necessary rights needed to bring a lawsuit that there is generally no reason for a court to grant broader discovery. Where the defendant has filed a Rule 11 motion for sanctions, however, the defendant could additionally argue that it had a need to know about related parties in order to formulate possible counterclaims. Judges should carefully apply flexibility where defendants seem to have reasonable grounds for such counterclaims.

The legal system seems unlikely to take action on its own to end privateering, especially not in a short-term time frame. Of course, courts would likely have little hesitation in punishing privateers and sponsors for cases that were found to be frivolous or where market manipulation or antitrust were shown. In the absence of action by the legislator to change the law to prohibit privateering, *per se*. Thus, a solution may lie with the architect of the innovation system – the legislator.

4.2.2 IP Privateering from the Perspective of Various Economic Actors

One could suppose that a legislator might be inclined to amend the laws to prohibit IP privateering on a sufficient showing that the practice was harmful to the economy overall and especially to the innovation system. In conducting its investigation, the legislator might query various groups within the innovation system for their thoughts and perspectives regarding IP privateering. Presented below are some perspectives that various actors within the innovation system might have regarding IP privateering. Of course, further analysis and empirical validation of these viewpoints would be warranted prior to reaching any conclusions that might impact policy.

4.2.2.1 Inventor, SME, and NPE Points of View

Privateering likely provides mixed benefits for investors/SMEs. The relative handful of inventors, SMEs, and NPEs³²³ who hold IP rights deemed useful to a privateering sponsor may benefit handsomely from privateering. Inventors, SMEs, and NPEs, as discussed above, have

³²³ Here, NPEs are somewhat more likely to include universities and research institutions, although aggressive NPEs willing to sell IPRs for a privateering operation could certainly be included.

sold their IPRs to investors for many years.³²⁴ Privateering simply provides yet another rationale for such transactions.

When one looks at privateering from an inventor/SME point of view, one can possibly see that IP privateering might accelerate a logical split that has already been observed in the technology market. Those inventors/SMEs who attempt to make and sell products/services into the marketplace could well become the targets of privateering operations and suffer greatly from it. On the other hand, most inventor/SMEs will not have capital for privateering themselves.

Granstrand and Chesbrough have already commented on the growth of open innovation.³²⁵ There is a possibly emerging economy in which some actors focus on R&D and then transact the fruits of their labors to firms that specialize in integration and commercialization.³²⁶ IP privateering possibly accelerates this trend in the sense that while it provides further discouragement to inventors and SMEs for manufacturing and selling products themselves, it does not discourage them from continuing to perform R&D and possibly even provides them with an additional avenue for selling the results of their R&D. Of course, further investigation is warranted.

4.2.2.2 Investor Point of View

Privateering potentially offers great benefits to the investor, especially the large investor. Privateering provides a tool for the large investor to shape the competitive landscape in a manner that better matches his investments, especially for those investing in relatively young technology markets. The approach allows the investor to employ his risk capital in a manner that may directly benefit his share capital.

Consider the benefits of privateering to an investment fund that has diligenced an emerging technology sector and found potential investments. Assume further that these potential investments comprise relatively small companies who more-or-less compete against each other. The investment fund could invest in a few of the companies, for example, and then find a patent, or patents, to privateer against the remaining companies. Given all the difficult things that any young company must handle, the distraction of a patent litigation might be just enough to allow the two companies invested in (and not privateered against) to surge ahead of their competitors.

Of course, some investors, particularly small ones, may find privateering detrimental to their investments. The tradeoff from IP privateering for investors likely comprises the ability to quietly shape competitive environments on the one hand against the dangers of unchecked IP competition on the other hand. It would further seem that the greatest benefits to privateering may possibly lie in the early days when knowledge of privateering, especially in the investment

³²⁴ See, *Evolving Marketplace*, *supra* note 60.

³²⁵ See, Granstrand, *supra* note 28.

³²⁶ *Id.*

community, is likely low. Further investigation into the perspectives of investors of various sizes seems warranted.

4.2.2.3 Large Operating Company Point of View

The benefits of privateering generally track with a company's size. For the most part, small companies are shut out of privateering sponsorship because they are less likely to have the extra capital to expend on a privateering effort. The high cost of patent litigation impedes the ability of a small company to bring patent litigation generally.³²⁷ Also, the main benefit of privateering comes from changing a portion of the competitive landscape without having one's name associated with the change. The competing supplier scenario would seem to be one of the few situations where privateering might be advantageous to a small company.

Curiously, many large companies have been the ones to complain the loudest about NPE litigation, and the litigations that they have complained the most about are those brought by aggressive NPEs (some of whom may have been privateers).³²⁸ While privateering has existed for some years, companies have no incentive for being glib about privateering. The corporate world has no equivalent to Queensberry Rules³²⁹ and neither does the IP world. The only real approbations in the competitive world are legal and business ones – if an activity will grow shareholder value and not run afoul of any legal rules, then it is as “gentlemanly” as any other activity.³³⁰ Micron's involvement with Round Rock Research has already been discussed. Micron has not, thus far, publicly acknowledged the sale of 20% of its patent portfolio to Round Rock Research beyond a passing mention in its SEC filings.³³¹ Micron's counsel has previously spoken publicly about the negative impacts of aggressive NPEs.³³² Some have accused the company of hypocrisy,³³³ but Micron is under no obligation to clearly outline its corporate strategy in public, absent regulations to the contrary. In the absence of an explanation, one can only guess at the company's overall strategy with respect to Round Rock. Similarly, as previously mentioned, the companies who complain the loudest about the patent backlog and “bad” patents³³⁴ are sometimes the same companies who have argued the hardest for lowering

³²⁷ Even with the use of contingency fee attorneys, the litigations will still have costs and will likely create distractions for managers.

³²⁸ Yen, *supra* note 96.

³²⁹ See, *Queensberry Rules*, The Oxford Dictionary of Phrase and Fable, http://www.encyclopedia.com/topic/Queensberry_Rules.aspx#1-1O214:QueensberryRules-full.

³³⁰ An economic or innovation system viewpoint may differ sharply, of course.

³³¹ Micron Technology, *Annual Report* (Form 10-K) 8 (Oct. 28, 2009) (“[Micron] has recovered some of its investment in technology through sales of intellectual property rights to joint venture partners and other third parties.”).

³³² See, *Competition FTC Hearing*, *supra* note 60, at 685–86 (statement of Joel Poppen, Dir. of Patent Litigation & Licensing, Micron Technology, Inc.).

³³³ Joff Wild, *The Questions that Micron Technology Will Not Answer*, *IAM Mag.* (June 8, 2010), <http://www.iam-magazine.com/Blog/Detail.aspx?g=4768d19e-571c-452b-ac56-a3ba9e22fe19>

³³⁴ Chien, *supra* note 41 at 317-318.

the benefits of the patent right.³³⁵ In the aggregate, it is difficult to know how companies really feel about IPRs, NPEs, and privateers, despite their public pronouncements when their behaviors run in the opposite direction. Corporate actors have little incentive for making proposals to an innovation system that could possibly put them at a disadvantage.

Large corporations are the ones who most likely created IP privateering, as previously discussed, and it should come as little surprise that they are the primary beneficiaries of this strategy. One might suspect, however, that large companies could be amenable to reforms in the overall innovation system that would alter the place of IPRs and diminish the role of stealth in IP operations. Further research is called for, of course, before new policies are suggested. Among the questions to be considered would be the extent to which the patent system is intended, implicitly or explicitly, to benefit large companies in comparison to small companies, research laboratories, and independent inventors.

4.2.3 IP Privateering from an Innovation System Perspective

In addition to querying the actors in the innovation system directly, the legislator might also wish to consider the innovation system from a systems perspective prior to changing the law with respect to privateering. Thus, questions about privateering could be framed around the innovation system, generally, and the purported goals of the patent system, specifically. From a societal or consumer point of view, the IPR system within an innovation system is often considered to:

- Stimulate the rate of invention by providing an incentive for investment in R&D (also for reinvestment and for invent-around work);
- Stimulate the rate of commercialization (rate of innovation) through investment in general;
- Stimulate the rate of diffusion and technology transfer through disclosure, marketing and licensing; and
- Provide an artificial metric of invention.³³⁶

Applying this framework, leads to several questions: Does privateering³³⁷ have any real impacts on investment in research and development – or does it primarily act as a wealth redistribution mechanism among existing innovation system actors? Are privateering and NPE

³³⁵ *Id.* at 333.

³³⁶ Ove Granstrand, *The Economics and Management of Intellectual Property – Towards Intellectual Capitalism*, (Edward Elgar, 2000). (The corresponding drawbacks of an IPR system are that it risks monopolistic inefficiencies (including risk of hampered commercialization of new technologies); requires administrative costs for setting up and running the system; carries a risk of R&D and investment distortion, and also runs a risk of over-investment in duplicative R&D and/or substitute inventions.).

³³⁷ And possibly all of NPE activity for that matter.

activity generally mechanisms for redistributing wealth among a certain category of economic actors or do these practices cause real economic harm, especially to the innovation system?³³⁸

4.2.3.1 IP Privateering, NPEs, & Venture Capital

Privateers are a specialized form of NPEs. The IP privateers, while smaller in number than the aggressive NPEs, may have succeeded in claiming a comparable number of prizes as the aggressive NPEs. Round Rock and IV alone account for nearly \$3 billion in IPR revenue, as previously noted.

NPEs tend not to say much about themselves, and they have no incentive for being chatty. Their preferred LLC corporate form conceals much information about themselves. Consequently, there is little publicly available information about who these actors really are in the aggregate. As others have noted, many conjectures about NPEs are either untested or, at best, motivated by individual cases.³³⁹ Considering the potential impact that NPEs and privateers may have on the functioning of technology markets and possibly the innovation system itself, putting some of these conjectures on solid empirical ground appears highly desirable.³⁴⁰

The identification of privateering came in part from trying to answer the question: “Who are the patent trolls, really?” Many NPEs are universities and research organizations. Still others are large businesses clearly out to maximize their licensing profits.³⁴¹ But there are numbers of other smaller entities, typically having a limited liability corporate form, whose membership, organization, and motives are essentially unknown.

³³⁸ An assumption to this question is that wealth redistribution among persons within the same economic class has little impact on the overall economy.

³³⁹ Gerard Magliocca, *Blackberries And Barnyards: Patent Trolls And The Perils Of Innovation*, (2006), SSRN working paper 921252.

³⁴⁰ Reitzig, *supra* note 31 at 2.

³⁴¹ One thinks of an Acacia or an Intellectual Ventures. Acacia is a publicly traded company that, through its subsidiaries, enforces the patents of individual inventors, small companies, and even large companies seeking to monetize their patents. (Acacia Techs., LLC, Acacia Technologies: Leader in Patent Licensing and Enforcement 3, 3 <http://acaciatechnologies.com/docs/CorporateBrochure.pdf> (“[P]atent owners who engage with us are primarily inventors and small companies who have limited resources to deal with unauthorized users, but include some large companies looking to turn their patents into revenue.”).) Acacia typically splits its revenues, giving half to the inventor and retaining half for itself, (Letter from Paul Ryan, Chief Exec. Officer, Acacia Research, to Fed. Trade Comm’n (May 13, 2009), available at <http://www.ftc.gov/os/comments/iphearings/540872-00048.pdf>). Acacia both licenses and litigates as part of its enforcement campaigns. Acacia’s subsidiaries were involved in 308 lawsuits from 1993 to 2008 which produced more than \$400 million in revenue. (See, McCurdy, *supra* note 21, at 80 and Acacia Techs., LLC Patent Licensing & Tech., <http://acaciatechnologies.com/index.htm>.) Similarly, IV acquires, develops, and licenses patents for fees and equity investments, at times resorting to litigation. The company claims to have received from \$5-8 billion in investment which it has used to purchase more than 35,000 patents/applications worldwide and claims to have already collected some \$2 billion in revenue. Investors include some large companies like Microsoft, Apple, and Sony, as well as large institutions and wealthy private individuals. See, Ewing, *supra* note 198.

Because no one knows who owns the aggressive NPEs, it is likely impossible to determine what happens to the litigation and settlement funds they receive. Round Rock, for example, could well have been a billion dollar purchase,³⁴² but it has not yet been revealed precisely who provided the money or who controls the company, as noted previously.³⁴³ As a group, the modern NPEs and privateers seem likely to be parties with access to a generous amount of risk capital. Historically, the patent trolls may have been patent attorneys, individual inventors, or the managers of failed companies,³⁴⁴ but the level of investment in NPE activity possibly indicates that the NPE world includes many well-financed new entrants. The average patent sold at the Ocean Tomo auctions was nearly \$200,000,³⁴⁵ and as discussed earlier, the price of an Ocean Tomo patent is a good proxy for the price of an NPE patent. While \$200,000 is not an enormous sum, the amount essentially represents the requisite minimum entry ticket into an expensive, risky, and uncertain venture. Even if one can find adequate legal talent on a contingency basis, litigations still involve expenses, and expenses probably cost at least another \$200,000.³⁴⁶

Aristotle called it *anagnorisis*, that moment where the protagonist in a drama suddenly works out what's been going on the whole time.³⁴⁷ Whoever the contemporary patent trolls are, they have approximately a half million dollars in risk capital. One could hypothesize that the patent trolls must be entities who have access to levels of capital that exceed the amounts needed for conventional wealth preservation and can afford to commit capital in potentially risky ventures. Risk and venture capitalists are a somewhat better known group that essentially comprises the persons who provide much of the funding for the innovation system.³⁴⁸ For those in the innovation system who disapprove of IP privateering, then borrowing a famous phrase from the Pogo cartoon strip, "We have met the enemy and he is us."³⁴⁹

It would not make sense for venture capitalists to employ patents acquired with risk capital against the same companies in which they have invested their share capital. But it would make sense for them to employ risk capital patents against competitors of their share capital companies. In fact, this might be exceptionally profitable. In short, it is possible that the patent

³⁴² Based on comparables with other portfolios such as Nortel's auctioned portfolio, which sold at auction on July 1, 2011 for \$4.5 billion. Joff Wild, *Google The Big Loser As Nortel Patents Go For A Jaw-Dropping \$4.5 Billion*, <http://www.iam-magazine.com/Blog/Detail.aspx?g=fb20690c-a0f8-421d-8ea9-f4270a63fa40>.

³⁴³ Although as noted above, Atlantic Capital and Goldman Sachs appear to have played roles; see, *supra* note 263.

³⁴⁴ See, Lemelson, *supra* note 107; see Katz, *supra* note 106, and see, Ray Niro, *supra* note 105.

³⁴⁵ Ewing, *supra* note 71 at 67 (Intellectual Ventures bought 75.8% of the patents auctioned, and other NPEs bought 13% with only 11.2% being purchased by operating companies, and nearly a dozen patents purchased at Ocean Tomo patents have been used in patent litigations.).

³⁴⁶ See, Lans *supra* note 224 (Note the references to the "986 Partners").

³⁴⁷ Northrop Frye, *Fables of Identity: Studies in Poetic Mythology*, 25 (Mariner 1963)(Aristotle identified the famous scene in *Oedipus Rex*, where the young king realizes he's killed his father and had sex with his mother, as the most perfect example of this in action.).

³⁴⁸ Matthew Bishop, *A Survey Of Private Equity, The New Kings Of Capitalism*, *The Economist*, Nov. 25, 2004, http://www.economist.com/node/3398496/?story_id=3398496/.

³⁴⁹ Walt Kelly, *The Pogo Papers*, forward (Simon and Schuster 1953), reproduced by Kelly in an Earth Day poster in 1971.

trolls, like the privateers, are likely to be the actors whose superior wealth allows them a measure of control over the economy, already, and for some of these actors (the privateers), the litigations they bring are not just for the purpose of making money from a litigation damages award but as a tool for making a whole lot of money someplace else.

If privateers, and some NPEs as well, are funded by participants in the existing innovation system, then one could ask what happens to the funds they receive from litigation settlements and awards? Further research into where the funds received from NPE and privateering activities end up might prove enlightening. It may well turn out that NPEs function more within the innovation system than outside it in the sense that much of the money they collect might possibly be returned to investment, albeit of a different form.³⁵⁰

Thus, privateering, and possibly much of NPE activity, may already be tied to the innovation system by virtue of similarities among its funders.³⁵¹ While the legislator, or regulator, could attempt to enjoin these activities without further contemplation about the whole of the innovation system, the legislator could alternatively consider this possibility as providing an appropriate motivation for undertaking a more thorough examination of the innovation system itself.³⁵²

The Congress, the courts, and the United States Patent and Trademark Office (USPTO) comprise the overt leaders of the innovation system's patent portion and infrastructure changes to the patent system primarily occurred by making adjustments to one of these three institutions.³⁵³ The literature on patent system design is rich³⁵⁴ and has addressed a series of issues pertaining to post invention inefficiencies, including cumulative innovation³⁵⁵ and conflict resolution issues.³⁵⁶ The emerging patent ecosystem also highlights the influence of non-legal developments, including demonstration effects and business model innovations, on the patent system.³⁵⁷ The complete ecosystem has sometimes suggested possibilities for changing the patent system by changing sponsor behavior directly, rather than directly through one of these three institutions. In any event, the patent ecosystem has no explicit links to any other portion of the innovation system. Rather than making an *ad hoc* change to correct privateering (or NPEs),

³⁵⁰ Absent a small measure of transaction costs.

³⁵¹ The publication of IV's investor list, provided in Appendix 1, has essentially confirmed this hypothesis.

³⁵² This, of course, does not mean constructing a planned economy but instead building a framework for an innovation system in which individual actors compete as they please. One could cite Milton Friedman about the dangers of a planned economy, but the political sector may be more compelling: in the words of former Pres. Ronald Reagan, "The nine most terrifying words in the English language are: 'I'm from the government and I'm here to help.'" <http://politicalhumor.about.com/cs/quotethis/a/reaganquotes.htm>.

³⁵³ See, Burk *supra* note 51.

³⁵⁴ See, generally, Adam B. Jaffe & Josh Lerner, *Innovation and Its Discontents: How Our Broken Patent System Is Endangering Innovation and Progress, and What to Do About It* (2004).

³⁵⁵ Jerry Green and Suzanne Scotchmer, *On The Division Of Profit In Sequential Innovation*, RAND Journal of Economics, (1995) 26(1), 20–33.

³⁵⁶ See, Claude Crampes and Corinne Langinier (2002), *Litigation And Settlement In Patent Infringement Cases*, RAND Journal of Economics, (2002) 33(2), 258–274 and Mark Schankerman and Suzanne Scotchmer, *Damages and Injunctions in the Protection of Intellectual Property*, RAND Journal of Economics, (2001) 32, 199–200.

³⁵⁷ Chien, *supra* note 41 at 304-306.

it might be more desirable for any changes to be comprehensive, and the most beneficial adjustment would seemingly be one that created linkages between existing innovation system components.

4.2.3.2 Innovation System Policy Questions & Considerations

If privateering is considered with respect to the overall innovation system, then the following represent some of the questions that a legislator might wish to seek an understanding of in crafting appropriate legislation.

4.2.3.2.1 Should a Reasonable Royalty Reflect the IP Owner's Background?

Patents have been considered a means for facilitating technology transfer in technology markets.³⁵⁸ Most prior commentators start from the premise that genuinely creative and credible patent holders must be defended against deliberate infringers.³⁵⁹ NPEs and privateers do not make products, let alone products protected by their patents. The Supreme Court declared nearly 100 years ago that manufacture of a product was not necessary for damages to be awarded in a patent infringement case.³⁶⁰ One question to ask with respect to the use of patents in the innovation system relates to adequate compensation for patent owners whose patents are infringed when lost profit damages are unavailable,³⁶¹ which is the case when the patent owner does not make or sell a product/service protected by the infringed patent. Of course, the law allows for a reasonable royalty in such situations, but one could investigate whether NPEs, such as universities and research labs, are deserving of a different royalty rate than an NPE who purchased a patent in the market. The present non-discrimination between these types of actors may represent an appropriate allocation. On the other hand, it might be a useful exercise to consider whether patents should have something analogous to moral rights³⁶² in copyright in the sense of recognizing a higher right when the patent is still owned by the party who created the invention.³⁶³ Such a change would not stop privateering or aggressive NPEs, but it might possibly act to stop some speculation in IPRs.

These questions would implicate privateers as well as general NPEs. Most privateers are not practicing their invention and in many cases the IPRs have been purchased. Among other questions, an investigation could consider the utility, if any, to the overall system for allowing a

³⁵⁸ Joshua Gans, and Steven Stern (2008), *Is there a market for ideas?*, SSRN Working Paper 1334882

³⁵⁹ See, Reitzig, *supra* note 31 at 14, but compare with James Bessen & Michael J. Meurer (2006), *Patent Litigation With Endogenous Disputes*, AER Papers and Proceedings, 77–81 (2006).

³⁶⁰ *Continental Paper Bag v. Eastern Paper Bag Co.*, 210 U.S. 405, 429 (1908).

³⁶¹ See, 35 USC. Sec. 284, http://www.uspto.gov/web/offices/pac/mpep/consolidated_laws.pdf.

³⁶² See, e.g., Mira T. Sundara Rajan, *Moral Rights and Copyright Harmonisation: Prospects for an "International Moral Right"?*, 17th BILETA Annual Conference (Amsterdam, 2002), <http://www.bileta.ac.uk/Document%20Library/1/Moral%20Rights%20and%20Copyright%20Harmonisation%20-%20Prospects%20for%20an%20'International%20Moral%20Right'.pdf>.

³⁶³ Of course, many patentees sell their patents to third parties because of the difficulties and expense associated with patent enforcement.

market incumbent to privateer against an upstart competitor. This may prolong market inefficiencies, but on the other hand may possibly bring systemic benefits as well.

4.2.3.2.2 How Critical Is Ownership Transparency to the Innovation System?

The patent component of the innovation system has long had requirements regarding the transparency of what has been patented. Complete patent specifications have been published and widely circulated since at least the great Patent Office fire of 1836.³⁶⁴ Prior to the great fire, patent documents were kept within the Patent Office and patent litigation somewhat involved a literal determination as to what had been patented when an inventor produced a patent certificate in court. This problem was solved by publishing issued patents which were made available to libraries and the general public. Companies, other inventors, and the general public were encouraged to study these documents to learn what had been patented so as to avoid infringement and to make still more inventions. The advent of the Internet has allowed patent documents to be made instantly available and free of charge from the world's major patent offices. In short, there is complete transparency as to what has been patented.

However, there is no corresponding transparency requirement regarding patent ownership. The NPE market and privateering raise interesting questions about transparency of ownership in IPRs. Hiding ownership was not an issue that came up very often in IP matters until Henry Yuen, CEO and chairman at Gemstar-TV Guide³⁶⁵ (and others) in the late 1990s began boasting that important chunks of the company's portfolio were hidden and could never be found until the company was ready to use them in an infringement lawsuit.³⁶⁶ Such bold assertions may have proven to be an effective licensing technique. The USPTO allows patent owners to record their ownership in patents, and this step is highly recommended when a patent has been sold to prevent the previous owner from selling the patent again to a third party, but this step is not required. Similarly, as discussed above, only the party owning substantial rights to a patent may file a patent infringement lawsuit. But there is no prohibition against hiding the ownership of a patent behind another entity. Intellectual Ventures has done this more than 1,300 times, and Micron has more or less done this with the quarter of its patent portfolio sold to Round Rock Research.

One can debate the extent to which this lack of transparency impedes the robustness of the innovation system and the technology markets. A rights-based mindset might be inclined to argue that a company should carefully review all patents and seek licenses for all of them that appear problematic, regardless of who owns them, and that greater transparency only allows

³⁶⁴ See, USPTO, *Great Patent Fire of 1836*, <http://www.uspto.gov/web/offices/ac/ahrpa/opa/kids/special/1836fire.htm>.

³⁶⁵ The company is now named Rovi, following its merger in 2009 with Macrovision, <http://www.rovicorp.com/company/242.htm>.

³⁶⁶ Ronald Grover et al., *Henry Yuen: TV Guy, The Founder Of Gemstar-TV Guide Wants To Take Control Of Your Television*, *Business Week*, March 12, 2001, http://www.businessweek.com/magazine/content/01_11/b3723001.htm.

companies to dodge their obligations by using the ownership information to determine which patent owners are more likely to hurt them. On the other hand, and especially because there are so many active patents, the lack of transparency essentially allows “sneak attacks” that might be less likely to occur with greater transparency, and this intransparency may possibly cause greater amounts to be spent in licensing and litigation costs due to the surprise element rather than technical merit. Intransparency may also contribute to speculation in the IP markets. This particular lack of transparency merits further study and analysis.

4.2.3.2.3 Is It Desirable to Overtly Regulate the Patent Supply?

The patent oversupply problem facilitates IP privateering, just as it facilitates aggressive NPEs. The legislator could also consider whether there is an optimal number of patents at which the technology markets would optimally function. This optimal number, if it existed, would likely vary depending on the technology but could possibly be expressed in a formula. If such an optimal number could be shown to exist, then the legislator would next want to consider whether there is a reasonable mechanism for regulating the patent supply to achieve these optimal numbers.

At the moment, the patent supply is completely driven by patent applicant and patent owner behavior. Of course, patent applicant behavior is somewhat stimulated by investment levels, and in some cases investments in R&D come with a requirement, or strong incentive, that the results of the R&D effort be patented. But once an application is filed with the Patent Office, the primary consideration for patentability at present relates to the conditions for patentability largely set out in Sections 102 and 103 of the Patent Act, namely novelty and obviousness. The patent system does not overtly consider other factors, such as the quantity of patents already existing in a given technology area.³⁶⁷

A more tightly regulated patent supply could prevent the oversupply problem that seems to facilitate privateering and NPE activity. Of course, regulating the patent supply would not end IP privateering or aggressive NPE activity, but it might have a chilling effect on these activities and confine them to an acceptable norm. The desirability and/or perceived necessity of chilling these activities should also be considered, of course.

4.2.3.3.4 Should the Innovation System be More Formally Designed?

One could question the extent to which the innovation system has been overtly designed. If the US innovation system has been designed, its design does not reside within a single, or even a small, set of laws, although it might theoretically reside among a mix of public policies and

³⁶⁷ Of course, the quantity of patents in a given area is implicitly considered in the sense of obviousness. One could presume that as the number of patents in a given area grows, then the ability to obtain a new patent in that area becomes increasingly difficult. This is sometimes stated in terms of claim scope, however, in the sense that a patentee may still receive a patent but the claim coverage may be commercially insignificant. This might make an interesting hypothesis to test.

institutional norms. Throughout its history, the Patent Act has focused on the conditions for obtaining patents and enforcing them. Economic considerations have not overtly played a part in developing US patent laws themselves, although economic testimony has been obtained at certain milestones related to the patent laws.³⁶⁸ Economic considerations have not been expressly included in the law and only rarely appear in the case law.³⁶⁹

US patent laws tend to be copies of an earlier patent act with various additional case law considerations added. Some of the wording of the US Patent Act has not substantially changed since the first US Patent Act.³⁷⁰ In a similar manner, the first modern patent law, the Statute of Monopolies 1624 in the England³⁷¹ itself represented far less the fruits of an affirmative attempt to create a thoughtful patent law than a political compromise to curb a prior abuse – in this case, the abuse being the power of the king to grant patents for any topic, with the reform being limiting the power of the king to grant patents only for inventions.³⁷²

There has not been a comprehensive standards setting body that establishes the outlines of an innovation system or a patent system where representatives of invention, manufacturing, law, economics, and other relevant parties gather to work out exactly how such a system should function. While there has certainly never been a “Congress of Vienna”³⁷³ for patent law, there has also never been an ETSI-like standards setting body either.³⁷⁴ So while representatives have come together to discuss which technology developments should be included in a technology standard, which itself is represented by some number of patents, those same representatives have

³⁶⁸ F. M. Scherer, *The Political Economy Of Patent Policy Reform In The United States*, J. On Telecomm. & High Tech. L., 180-195, June 2009. (In some instances, such as the Bayh-Dole and Hatch-Waxman Acts, the policy changes were the result of thorough and sound economic analysis while in other instances, such as the creation of the Court of Appeals for the Federal Circuit, the economic analysis was lacking.), <http://www.researchoninnovation.org/scherer/Scherer-PoliticalEconomy2009.pdf>.

³⁶⁹ The *Uniloc* case provides a rare exception with the Court rejecting the 25% rule of thumb as a starting point in calculating patent royalties. See, *Uniloc USA, Inc. v. Microsoft Corporation*, Nos. 2010-1035, 2010-1055, 2011 WL 9738 (Fed. Cir. Jan. 4, 2011), <http://www.ca9.uscourts.gov/images/stories/opinions-orders/10-1035.pdf>.

³⁷⁰ Many sections of the original 1790 Act can be found nearly word-for-word in the present US Patent Law, 35 U.S.C. For example, the present definition of “inventions patentable” under Section 101 reads as “Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title,” while in the original 1790 Act, the wording for patentable inventions was set forth as “[the patent applicant has] invented or discovered any useful art, manufacture, engine, machine, or device, or any improvement therein not before known or used” Other sections of the original patent act are similar to the wording of the present law. Compare http://www.uspto.gov/web/offices/pac/mpep/consolidated_laws.pdf with http://www.ipmall.info/hosted_resources/lipa/patents/Patent_Act_of_1790.pdf.

³⁷¹ Chris Dent, ‘*Generally Inconvenient*’: *The 1624 Statute Of Monopolies As Political Compromise*, Melbourne University Law Review, Vol. 33 (2009)(“The continued reference to the statute, almost 400 years after it was enacted, accords it an almost idealised status within patent law. Such a status does not acknowledge the political context of its passage through the Jacobean Parliament. This article addresses key aspects of the early modern period — including economic depression, issues of succession, and the rivalry between the City of London and the outports — to argue that the Statute of Monopolies is best seen as a compromise, a political deal done between the Crown, the House of Lords and the individuals and groups within the House of Commons.”).

³⁷² *Id.*

³⁷³ The conference that redrew the national borders in Europe following the fall of Napoleon.

³⁷⁴ ETSI, see, *supra* note 488.

never come together to develop the protocol for an inventive system or even a patent ecosystem.³⁷⁵ The closest arrangements that one could point to on this topic are the Paris Convention,³⁷⁶ the Patent Cooperation Treaty (PCT),³⁷⁷ the European Patent Convention,³⁷⁸ and the TRIPS agreement.³⁷⁹ The Paris Convention and the PCT only pertain to harmonization of very small portions of the overall patent system, the pertinent topic being reciprocity in international patent protection.³⁸⁰ The TRIPS agreement can also be viewed similarly.³⁸¹ The EPC probably represents the closest exemplar of a grand patent convention, but the EPC itself was limited to the conditions under which one should be granted a patent and did not address the larger context in which those patents would be exploited.³⁸² The EPC did not address topics like valuation, litigation, and licensing. By analogy, the EPC addresses how one can manufacture a proper vehicle for road use. It does not address how the roads are built or where they go, how one should use the roads, what the benefits are from use of the roads, how the interests are balanced between the use of the public roads and other factors, such as safety, the rights of pedestrians, etc. The rise of privateering may suggest certain possible patent reforms. But for any such reforms to be enacted meaningfully, the role of invention in industrial progress must be carefully thought through.

4.3 A Review of Policy and Management Considerations

Certain abusive forms of IP privateering, such as anticompetitive and/or market manipulative IP privateering can likely be ended by the courts using present law. Privateering targets will still have difficulties obtaining sufficient information about the sponsors, however. There may be roles for the Antitrust Division of the US Dept. of Justice and for the SEC in curtailing these forms of privateering. It seems unlikely that the case law will evolve in a manner to create a blanket prohibition against privateering in other areas however, at least in the short run. Curtailing privateering may compel action by the legislator. However, given the evolution of NPEs and privateers to apparently include some of the same, or similar, capital sources that fund other parts of the innovation system, it might be desirable to consider overtly the role of privateering in an innovation system. Moreover, it might be equally desirable to construct an explicit innovation system that has an effective buy-in from all representatives of the innovation system.

³⁷⁵ Or even to prepare a template for what such systems might look like in an optimum state.

³⁷⁶ Paris Convention for the Protection of Industrial Property, 1883, http://www.wipo.int/treaties/en/ip/paris/trtdocs_wo020.html.

³⁷⁷ Patent Cooperation Treaty, 1970, <http://www.wipo.int/pct/en/texts/articles/atoc.htm>.

³⁷⁸ European Patent Convention (EPC 1973), <http://www.epo.org/law-practice/legal-texts/html/epc/1973/e/ma1.html>.

³⁷⁹ Agreement on Trade-Related Aspects of Intellectual Property Rights, 1994, http://www.wto.org/english/tratop_e/trips_e/t_agm0_e.htm.

³⁸⁰ See, *supra* note 569.

³⁸¹ See, *supra* note 570.

³⁸² See, *supra* note 570.

4.4 Suggestions for Further Research

This article has explored the research questions set out above. While further work could be performed related to all the of the research questions, the most compelling area for additional work relates to the robustness of the innovation system. In particular, various sub-questions associated with the innovation system have been raised that could be pursued in future research. Some of these questions will be recapitulated and summarized here.

Additional analytical techniques could be developed for solving some of the intransparency issues related to IPR ownership. An international survey that examined the varying degrees of legal intransparency allowed from jurisdiction to jurisdiction would seemingly be helpful. The results of the survey might provide helpful comparables in terms of the benefits of intransparency to the overall innovation system versus its costs. Among other things, the results of this survey could be used in shaping policy related to ownership transparency. Further research is also warranted in gauging the degree to which intransparency comprises a problem. As noted above, the public is not prohibited from studying any patent; they are all publicly available with nothing hidden, but their ultimate ownership can be essentially unknown and unknowable even after a rights assertion. It would be helpful to have a better understanding of the costs of this intransparency to commercial actors and the innovation system.

Further research into the nature of the patent supply seems warranted. The supply of patents available in the economy has up until now been controlled entirely by applicant filing behaviors. The apparently ready supply of IPRs in the marketplace seems likely to create something akin to inflation in a manner that might possibly not be all that different from increases in the money supply. A detailed study would be helpful in determining if additional safeguards should be added to the patent portion of the innovation system when applicant filing behavior exceeds certain thresholds. As discussed above, the patent office's general approach has often been to compromise with patent applicants and grant patents having a lower scope of claim coverage rather than denying patent grants completely. Further studies might be warranted to determine how a large collection of thin patents could be effectively managed systematically or whether a better solution would be simply stopping this situation from arising.

Further research into indirect IPR exploitation would also be helpful. Only a few studies seem to have touched upon this topic, and it has not generally been recognized as an independent IPR strategy. Of course, the indirect uses dovetail nicely with much of the open innovation research, although the indirect IPR strategies discussed here have not been performed for the purpose of allowing a company to product new goods/services but have instead been performed for the purpose of impeding other competitors. The extent to which IPRs can act as mercenaries seems less explored ground than the extent to which they can serve as missionaries, so to speak, in the open innovation literature.

As discussed above, further exploration of the linkages between various components of the innovation system would seem warranted. This has been a well-studied area, but additional investigations may be helpful in exploring the extent to which the innovation system operates as a whole and the extent to which it comprises a loosely related set of otherwise unrelated policies. A loosely related set of policies may provide the optimal solution, although gaps could arise in such a system. This investigation suggests various international studies, as one might expect that the innovation systems of some countries may be more significantly tied together than similar systems in other countries.

Of course, further research into IP privateering seems warranted. Now that a topology for privateering has been established, advanced methods can be developed for locating additional instances of the strategy. It would be helpful if a rich database of these privateering cases could be established for the benefit of researchers. Additional research regarding investor privateering would also seem warranted. A closer examination of publicly available stock trading information could be performed. However, given that the publicly available information reports stock trades in the aggregate, it could be difficult to pinpoint abnormal stock movements related to privateering. As suggested previously, collaboration with the SEC in developing algorithms for detecting trades related to infringement actions might be helpful. Such algorithms could certainly be developed if they were premised upon access to public stock trading data that identified specific traders.

Chapter 5

Conclusions

Modern capitalist economies have been built on competition among market actors. Absent adverse legal or business consequences, companies are incentivized to compete using every tool and technique reasonably at their disposal. Companies have increasingly employed IPRs as competitive tools during the past 30 years of the pro-patent era, frequently with the goal of extracting value directly from their own IPRs whether from licensing revenue or litigation rewards. As IPR competition accelerated, companies and investors have been incentivized to explore new ways of using IPRs. Innovations in IPR exploitation led some companies and investors to develop a class of techniques, labeled here as IP privateering, for the exploitation of third-party IPRs as tools for achieving larger competitive goals.

A corporation or investor serving as the sponsor for an IP privateering engagement employs third-party IPRs as competitive tools. The privateer, a specialized form of NPE, asserts the IPRs against target companies selected by the sponsor. The sponsor's benefits do not typically arise directly from the third party's case against a target but arise consequentially from the changed competitive environment brought about by the third party's IPR assertion.

A topology has been provided for these indirect exploitation tools. The “sponsor” variable may comprise an operating company, an investor, or a hybrid that includes both an operating company and one or more investors. A “discretion level” variable relates to the sponsor’s needs for discretion in a given privateering operation. An “indirect monetization focus” variable pertains to how the sponsor will indirectly benefit from the privateering effort. The sponsor’s main benefit, or indirect monetization focus, comprises nudging the target into a less competitive position. The identified possibilities for indirect monetization focus include a change in the valuation/stock price of the target, a change in the legal infrastructure, a change in a technology adoption rate related to the target, a change in a business innovation adoption rate related to the target, a change in business relationships to the benefit of the sponsor and to the detriment of the target, and facilitating the licensing of a larger IPR collection not involved in the privateering operation. The privateer’s “knowledge” of the sponsor comprises another variable; the privateer itself does not necessarily know who the sponsor is in all cases. The “sponsor’s control level over privateer” comprises another variable and relates to the degree to which the sponsor can control the privateer’s actions. The “privateer corporate structure” comprises another variable. Finally, the “profit sharing structure” comprises a final identified variable. In many cases, the sponsor benefits from privateering whether or not it receives rewards from the privateering effort directly. Consequently, the possibilities for profit sharing comprise no profit sharing, a flat rate amount, a percentage, and/or a debt repayment. The third-party privateer’s motivation comprises collecting a litigation settlement or damages award.

Privateering scenarios can be shaped to fit many competitive scenarios. Privateering may be used by operating companies to change the technology adoption rate between an upstart technology and an incumbent technology, to outsource the licensing of a larger collection of IPRs, to change some aspect of the legal infrastructure, and/or to generally build influence. Privateering may be used by investors to grow existing investments by privateering against competitors in a given technology area, to change the value of the stock price of a public company to temporarily discount shares and/or to facilitate short selling, to change a company’s value during investment, and to recoup research costs. Outsourcing patent litigation, one branch of privateering, allows companies to shape their competitive environments and in some instances monetize their IP rights at extremely low cost. While industry experts and IP managers concede that privateering exists, the extent to which various privateering scenarios have occurred, are occurring, or will occur in the future, and which privateering scenarios are possible but presently only hypothetical remains somewhat unknown and unknowable because the sponsor’s goal in almost every privateering engagement is stealth and because there are few existing reasons under US law why the complete ownership structure behind a given patent-holding entity must be publicly exposed. Privateering examples discussed above seem to have resulted in the collection of nearly \$3 billion thus far by their sponsors, and possibly an order of magnitude more in revenue losses avoided, although the total amount gained by sponsors remains unclear.

IP privateering is not limited to just operating companies; investor groups also likely privateer as well. In many instances, as discussed below, the potential returns and liabilities for these investors compares even more favorably than for the operating companies. Hybrid privateering efforts by operating companies and investors also seem to have occurred, especially in instances where the investors are also major stockholders of the operating company that will indirectly benefit from the privateering litigation.

Although privateering *per se* gives rise to no legal or equitable cause of action, whether the practice should be encouraged is another matter. Since privateering is generally lawful, one cannot easily argue that the practice encourages disrespect for the law. Nevertheless, privateering raises questions about the social utility of IPRs, particularly patents. Even when existing legal causes of action may theoretically come to the aid of the privateering target, the target may still have daunting discovery issues related to finding the sponsor. In market manipulation cases, the target may be unlikely to have the relevant trading data or be able to match it with a party connected to the privateering effort. Consequently, there may be a role for the Antitrust Division of the US Dept. of Justice and for the SEC in monitoring particular forms of privateering behavior and responding accordingly. Privateering, as a subset of NPE litigation, also raises questions about the impact, or non-impact, of NPEs on the overall economy and investment in research and development. In the absence of information to the contrary, it seems possible that much of the profit from privateering, as well as NPEs, returns to investment rather than being removed from investment. Privateering raises further questions about the oversupply of active and available patents in the so-called pro-patent era and the ease with which they can be acquired and asserted. The impact of privateering on the innovation system and the apparent presence of key innovation system actors in privateering suggests the possible consideration of a more overtly constructed innovation system explicitly designed by all of its major stakeholders, including independent inventors. However, conclusions are difficult to draw with the information presently available and additional investigation seems warranted.

Appendix 1

Capital Sources for NPE & Privateering Activities

Note: This list provides the names of Investors from four of Intellectual Ventures patent-related funds. Disclosure of this information was required by the court in *Xilinx v. Intellectual Ventures Investment Fund I, L.P. et al.* on May 16, 2011. Some of the operating companies named on the list may have interests more along the lines of licensees than investors.

No.	Investor	Invention Investment Fund I	Invention Investment Fund II	Intellectual Ventures I	Intellectual Ventures II	Notes
	Operating Company					
1.	Adobe Systems Incorporated		Financial Interest			
2.	Amazon.com NV Investment Holdings Inc., an affiliate of Amazon.com, Inc.	Financial Interest	Financial Interest			
3.	American Express Travel Related Services Company, Inc.	Financial Interest				
4.	Apple, Inc.	Financial Interest	Financial Interest		Financial Interest	
5.	Cisco Systems, Inc.		Financial Interest		Financial Interest	
6.	eBay Inc.	Financial Interest	Financial Interest			
7.	Google Inc.	Financial Interest				
8.	Intel Corporation	Financial Interest	Financial Interest			
9.	Microsoft Corporation	Financial Interest	Financial Interest	Financial Interest	Financial Interest	
10.	Nokia Corporation	Financial Interest	Financial Interest	Financial Interest	Financial Interest	
11.	Nvidia International Holdings, Inc., an affiliate of Nvidia Corporation	Financial Interest	Financial Interest			
12.	SAP America, Inc.	Financial Interest	Financial Interest			
13.	Sony Corporation	Financial Interest	Financial Interest	Financial Interest	Financial Interest	
14.	Verizon Corporate Services Group Inc.		Financial Interest		Financial Interest	
15.	Xilinx, Inc.	Financial Interest	Financial Interest			
16.	Yahoo! Inc.	Financial Interest	Financial Interest			

No.	Investor	Invention Investment Fund I	Invention Investment Fund II	Intellectual Ventures I	Intellectual Ventures II	Notes
	Investment Fund					
17.	Allen SBH Investments LLC	Financial Interest		Financial Interest		Entity related to the Allen & Company LLC
18.	Charles River Ventures	Financial Interest	Financial Interest	Financial Interest	Financial Interest	
19.	Commonfund Capital Venture Partners VII, L.P.	Financial Interest		Financial Interest		Verne Sedlacek is president & CEO
20.	Flag Capital		Financial Interest		Financial Interest	Diana H. Frazier and Peter Lawrence co-founded Flag
21.	JP Morgan Chase Bank, N.A., as trustee for White Plaza Group Trust	Financial Interest		Financial Interest		It is not clear who are the beneficiaries of the White Plaza Group Trust.
22.	Certain funds of McKinsey and Company, Inc.		Financial Interest		Financial Interest	
23.	Next Generation Partners V, L.P.	Financial Interest		Financial Interest		Appears to be related to Flag Capital
24.	Sequoia Holdings, LLC	Financial Interest		Financial Interest		Sequoia was founded by David Beisner
25.	Sohn Partners		Financial Interest		Financial Interest	
	Foundation/Universities/Non-Profits					
26.	Board of Regents of The University of Texas System		Financial Interest		Financial Interest	
27.	The Board of Trustees of the Leland Stanford Junior University		Financial Interest		Financial Interest	
28.	Brown University		Financial Interest		Financial Interest	
29.	Bush Foundation		Financial Interest		Financial Interest	The Archibald Bush Foundation was established by a former 3M chairman.
30.	Cornell University	Financial Interest	Financial Interest	Financial Interest	Financial Interest	
31.	Dore Capital, L.P., and affiliate of The	Financial Interest		Financial Interest		Dore appears to have

No.	Investor	Invention Investment Fund I	Invention Investment Fund II	Intellectual Ventures I	Intellectual Ventures II	Notes
	Vanderbilt University					a relationship with Apax Europe VI-A, L.P.
32.	The Flora Family Foundation		Financial Interest		Financial Interest	Founded by William Hewlett and Flora Hewlett.
33.	Grinnell College		Financial Interest		Financial Interest	
34.	Howard Hughes Medical Institute	Financial Interest	Financial Interest	Financial Interest	Financial Interest	
35.	International Bank for Reconstruction and Development, as trustee		Financial Interest		Financial Interest	The IBRD is one of five banks comprising the World Bank
36.	Legacy Ventures		Financial Interest		Financial Interest	Russ Hall, Alan Marty, and Chris Eyre are the managing directors
37.	Mayo Clinic and Mayo Foundation Master Retirement Trust	Financial Interest	Financial Interest	Financial Interest	Financial Interest	
38.	Northwestern University	Financial Interest	Financial Interest	Financial Interest	Financial Interest	
39.	Reading Hospital		Financial Interest		Financial Interest	A non-profit hospital located in Reading, Penn.
40.	The Rockefeller Foundation	Financial Interest		Financial Interest		
41.	Skillman Foundation		Financial Interest		Financial Interest	A Detroit-based charity that includes a member of the Ford family in its board of directors.
42.	TIFF Private Equity Partners	Financial Interest	Financial Interest	Financial Interest	Financial Interest	TIFF: "The Investment Fund of Foundations," is an investment cooperative.
43.	Trustees of the University of		Financial Interest		Financial Interest	

No.	Investor	Invention Investment Fund I	Invention Investment Fund II	Intellectual Ventures I	Intellectual Ventures II	Notes
	Pennsylvania					
44.	University of Southern California		Financial Interest		Financial Interest	
45.	University of Minnesota		Financial Interest		Financial Interest	
46.	The William and Flora Hewlett Foundation		Financial Interest		Financial Interest	
	Individuals					
47.	Dobkin, Eric	Financial Interest	Financial Interest	Financial Interest	Financial Interest	Appears to be Eric Dobkin, an advisory director to Goldman Sachs and Chairman Emeritus of Global Equity Capital Markets
48.	Fields, Richard	Financial Interest	Financial Interest	Financial Interest	Financial Interest	This may be Richard Fields, Chairman of Coastal Development, LLC
49.	Gould, Paul	Financial Interest		Financial Interest		This may be Paul Gould, a director of Allen & Co.
50.	Holiber, Adam		Financial Interest		Financial Interest	The may be Adam Holiber, president of Summit Equity
51.	Peretsman, Nancy	Financial Interest	Financial Interest	Financial Interest	Financial Interest	This would appear to be Nancy Peretsman, a director of priceline.com and managing director at Allen & Company LLC